


1972

College of Technology, Bolton Street Prospectus 1972-73

City of Dublin Vocational Education Committee

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College of Technology
Bolton Street
Dublin 1

Prospectus 1972-73

City of Dublin
Vocational Education
Committee

1972-73 Prospectus

COLLEGE OF TECHNOLOGY

**Bolton Street
Dublin 1**

City of Dublin
Vocational Education Committee

School of Architecture, Surveying+Building
School of Engineering
School of Printing+Book Production
School of Trades

Offices

College of Technology Bolton Street Dublin 1 Telephone 49913 (6 lines)
School of Trades Yarnhall Street Dublin 1 Telephone 49873/4
Annex 62 Eccles Street Dublin 7 Telephone 303169
Annex 18 Lower Leeson Street Dublin 2 Telephone 61640

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COLLEGE COUNCIL

Chairman	Mr Patrick Donegan 121 Shanard Road Dublin 9
	Dr John D Barry Deputy Principal
	Mr. Anthony Bennett SRC Representative
	Mr Thomas Bridgeman "Treetops" Swords Road Dublin 9
	Mr J B Colgan 50 Cedarmount Road Mount Merrion Co Dublin
	Mr A Harkin 52 Farney Park Dublin 4
	Mr Sean MacGuirc 3 Kincora Grove Dublin 3
	Mr D F O'Dwyer Principal
	Mr S O'Hanlon PC 1 Turlough Gardens Dublin 3
	Rt Rev Mgr J O'Regan STL PP Sandymount Dublin 4
	Mr Jeremiah P Sheehan BE MSc Chief Executive Officer City of Dublin Vocational Education Committee
	Mr Michael Scott FRIAI 19 Merrion Square Dublin 2
	Mr Michael Swords 46 Hazel Avenue Stillorgan Co Dublin

Principal

Donal F O'Dwyer BArch FRIAI

Deputy-Principal

John D Barry PhD MSc BE CEng FIMechE FIEI

School of Architecture Surveying and Building**Head of School** Kevin Fox BArch MRIAI**School of Engineering****Head of School** Dr John D Barry**School of Printing and Book Production****Head of School** Philip O'Reilly MIOP**School of Trades****Head of School** J B Hickey BA**Senior Chaplain** Rev Dermot McKenna SJ**Secretary/Registrar** Andrew A Farrell ACPA**DEPARTMENTS****School of Architecture, Surveying & Building****Department of Architecture & Town Planning****Head :** John J O'Keeffe MRIAI BArch**Assistant Head :** Liam Carlin MRIAI ARIBA**Department of Surveying & Building Technology****Head :** Vacant**Assistant Head :** Eanna de Burca FRICS**Assistant Head** Laurence Liddle MA FRICS
(Urban Economics)**School of Engineering****Department of Engineering Technology****Head :** Denis Fitzgibbon BE MSc CEng MIMechE**Assistant Head :** Michael O'Donnell MEconSc BE BComm CEng MIProdE MIEI**Department of Science & Mathematics****Head :** James A Nunan BSc HDipEd**Assistant Head :** Gerard Lawlor MSc**Department of Engineering Trades****Head :** Robert L Eustace BSc**Assistant Head :** Joseph Shiels**Department of Aeronautical Engineering****Head :** Thomas McInerney AMSLAE ACD & X Licences**Assistant Head :** Michael Forde A & C Licences**Department of Automobile Engineering****Head :** Sean Mac Guirc MIMI Manual Instructor's Certificate (Hons)**Assistant Head :** Richard Dowling MIMI**Department of Metal Fabrication****Head :** John G Bolton MWeldI FTC (C & G)**Assistant Head :** Brendan Rooney AWeldI Final C & G

School of Printing & Book Production

Head of Dept : Philip O'Reilly MIOP

Asst. Heads of

Dept : Prionsias O hEifearnain BA HDipEd FTC (C&G)

Joseph Reddin Lic in Printing (C&G) AMIPtgM

School of Trades

Department of Building Trades 'A'

(Bricklaying & Masonry, Furniture, Plastering, Painting and Decorating, Vehicle Building, Vehicle Trimming and Vehicle Painting)

Head : Michael C Murray Hons C&G

Assistant Head : Vacant

Department of Building Trades 'B'

(Carpentry and Joinery and Wood Machining)

Head : Thomas Bridgeman ABICC FTC (C & G).

Assistant Head : Joseph P O'Byrne FTC (C & G) LIOB.

Department of Metal Fabrication

Head : John G Bolton MWeldI FTC (C & G)

Assistant Head : Brendan Rooney AWeldI Final C & G

GENERAL INFORMATION & REGULATIONS

General regulations for Colleges and Classes operating under the Authority of the City of Dublin Vocational Education Committee are displayed in the Entrance Hall. All students are subject to these regulations.

Whole-time + Part-time Courses

Students are admitted at the commencement of the session in September. Applications for admission to wholetime courses should be submitted not later than 31st August on the form obtainable from the Secretary. Candidates awaiting results of examinations may make provisional application. Documentary evidence of qualifications should accompany all applications.

General Information

Day Classes will normally be held from 9 am to 12.30 pm and 2 pm to 5 pm each week-day except Saturday unless special arrangements are made in specific cases. Evening Classes will normally be held from 7 pm to 10 pm except where shown otherwise.

Office Hours : 9 am to 12.30 pm and 2 pm to 5 pm Monday to Friday, and at special periods of the year at times which will be posted on the Notice Board. Except during enrolment periods members of the teaching staff will not be available for interviews except by prior appointment.

Attendance

The College Authorities may exclude any student from the College without refund of fees for irregular or unpunctual attendance or misconduct, or for any other reason which in the opinion of the College justifies exclusion. Three successive absences in any one class subject may lead to suspension from the complete course unless the Principal is informed in writing of the reason.

Changes in Class

The College may change any or all of the syllabus, the day and time of meeting of any class and may cancel classes where the enrolment or attendance is considered inadequate. If for some urgent reason a teacher cannot attend or arrange for a deputy, classes may be cancelled without notice.

Sessional Examinations

Examinations are held at the end of Session, no student shall be admitted to the Examinations who has not made at least three-fourths of the possible attendance except in special circumstances and at the discretion of the Head of Department. Promotion to a Higher Stage of Instruction in any subject is contingent on reaching the required standard in Sessional Examination in the Lower grade.

- Examinations** Closing dates and fees for examinations conducted by the College, Department of Education, the City and Guilds of London Institute and other bodies are displayed on the College Notice Board as they occur. An Examination fee of £5.00 is payable in respect of College sessional examinations. Closing date for receipt of College Examination fees is **31st January 1973**. In exceptional circumstances and at the discretion of the College Examination Board a candidate may be allowed to enter for a College Examination after the closing date, subject to the additional payment of a late fee of £5.00. A candidate may be permitted to sit for one College supplementary examination without payment of a further fee.
- Fees** Fees are payable on enrolment and no student will be permitted to attend any class until the proper fees have been paid. Guarantees may be accepted from local authorities, education establishments or employers. Fees will not be refunded except where a course does not form or where a student, with the consent of the Head of his department, withdraws his application before the commencement of the course. The sessional fees are shown under the headings for the various courses.
- Higher Education Grants** Local Authorities are empowered to make grants to eligible students to enable them to pursue courses of higher education at universities and comparable institutions. The following courses offered by the College are of equivalent level to University degree courses and qualify for the grant: Architecture, Engineering, Construction Economics, Environmental Economics and Geo-Surveying. Application for these grants should be addressed to the Secretary of the Local Authority in whose area the student's parents normally reside.
- Foreign Students** Applications from Foreign Students must be accompanied by a letter of recommendation from the diplomatic representative of the country of origin in Ireland or where there is no such representative, from the Ministry of Education in the country of origin.
- Library** The College Library has an expanding stock of text books, periodicals and reference books appropriate to the work of the College. Staff and students of the College have access to its facilities and where necessary it may also be possible to obtain books and materials on loan from other libraries. The Library is normally open from 10 a.m. to 9.30 p.m. Monday to Friday and Saturday opening is provided over part of the session.
- Refectory** The students' Refectory is open throughout the session for lunches, teas and morning and afternoon snacks.

- Discipline** A member of the academic staff issuing a directive to any student misconducting himself on the College premises is authorised to enforce disciplinary measures, and the Principal may immediately suspend the student(s) pending a hearing of the charges by the College Council. The full co-operation of each student is invited in order to maintain the dignity and discipline of the College.
- Damage to Equipment and Premises** The cost of the repair or replacement of College property damaged by a student shall be paid on demand to the College Authority by the student responsible for such damage.
- Homework** Students are required to submit regularly such homework as may be prescribed by members of the academic staff and this will be taken into account in the assessment at the end of the Session.
- Laboratory Record** An Experimental Laboratory notebook must be maintained by each student of a Laboratory Class: an assessment will be made at the end of Session of each student's progress in laboratory techniques and experimental ability which will count in the sessional examination in that subject.
- Loss of, or Damage to, Personal Property** Whilst every reasonable precaution is taken, the College cannot accept responsibility for damage to or loss of students' property. Bicycles and motor cycles brought to the College premises by students should be locked and placed in the appropriate parking area. Coats, books, etc., should be clearly marked with the owner's name.
- Trade Courses** These classes are provided for the sole purpose of supplementing the practical trade training of persons actually employed at and engaged in the various operations of the trade. The College realises that it is impossible for a person to learn a trade solely by attendance at these classes and is further of the opinion that the admission to the classes of persons not actually engaged in the trades would be not only of little use to such persons but would prejudicially affect the instruction of those for whom the classes have been organised. Accordingly, the College reserves the right to restrict enrolment in the trade practical classes to those persons who are actually employed in the several processes and operations of the trade. For admission to these classes proof of actual employment in the several processes and operations of the trade will be certificates to that effect from the Masters' Associations and/or the official Trades Unions of the trade concerned.
- Change of Classes** No change of classes or courses may be made without the consent of the Head of Department.
- Change of Address** Change of address or place of employment should be reported to the Office immediately.

GUIDE TO COURSES

Technological +Technician Courses (Day)

Architecture, Surveying + Building

- D/1. Architecture Diploma Course. Whole-time.
- D/2B. Higher Building Technicians' Certificate. Whole-time.
- D/3B. Diploma Course in Environmental Economics. Whole-time.
- D/4B. Diploma Course in Construction Economics. Whole-time.
- D/5. Diploma Course in Geo. Surveying. Whole-time.
- D/7. Health Inspectors' Diploma Course. Sandwich.
- D/8. Architectural Technicians. Whole-time.

Engineering

- D/39. Diploma Course in Transportation Technology. Whole-time.
- D/40. Preliminary Engineering Course. Whole-time.
- D/42. Diploma Course in Mechanical & Production Engineering. Whole-time.
- D/43C. Civil Engineering Technicians' Course. Whole-time/Part-time.
- D/43M. Mechanical Engineering Technicians' Course. Whole-time/Part-time.
- D43V. Heating, Ventilating & Airconditioning Technicians' Course. Whole-time/Part-time.
- D/44. Diploma in Motor Industry Management.
- D/45. Aircraft Technicians' Course. Sandwich.
- D/46M. Mechanical Engineering Higher Technicians' Course. Sandwich.
- D46H. Diploma Course in Heating and Ventilating Engineering. Sandwich.
- D/46C. Civil Engineering Higher Technicians' Course.
- D/47A. Mechanical Engineering Technicians' Course. Part-time.
- D/47B. Mechanical Engineering Technicians' Course. Block release.
- D/127. Motor Vehicle Technicians, Part-time.
- D/135. Auto Engineering Technicians, Part-time.

Printing

- D/82. Training for Administrative Staff. Part-time.
- D/83. Higher Printing Education.

School of Trades

- D/4C or D/4D. Construction Technicians. Part-time.
- D153/A. Plumbing Technicians. Part-time.

Technological +Technician Courses (Evening)

Architecture, Surveying + Building

- E/2. Short term Course for the Construction Industry.
- E/3. Timber Technology.

Engineering

- E/40. General Certificate in Education.
- E/41. Graduate Courses in Engineering.
- E/42. Certificate Engineering Technicians' Course.
- E/43C. Civil Engineering Technicians' Course.
- E/43N. Instrumentation Technicians' Course.
- E/43M. Mechanical Engineering Technicians' Course.
- E/43S. Structural Engineering Draughtsmanship Course.
- E/43V. Heating, Ventilating and Airconditioning Technicians' Course.
- E/44. Motor Industry Management Course.
- E/46. Aeronautical Engineering Technicians.
- E/47. Diesel Maintenance.
- E/48A. Welding Technicians' Course.
- E/48B. Non-Destructive Testing.
- E/49. Automobile Engineering Technicians.
- E/50. Data Processing for Computer Users.
- E/51. Instrumentation and Control.
- E/52. Plumbing Design and Technology.
- E/53. Jig and Tool Design.
- E/54. Advanced Structural Design Course.
- E/55. Engineering Administration.
- E/56. Engineering Management Course.
- E/57. Works Managers' Course.
- E/58. Refrigeration Engineering Technicians.
- E/135. Advanced Automobile Engineering Technicians.
- E/139. Materials Handling.

School of Trades

- E/1. Building Technicians.

Printing

- E/81. Printing Technology.
- E/82. Training for Administrative Staff.
- E/83. Applied Printing.
- E/84A. Costing.
- E/84B. Estimating.
- E/85. Paper Technology and Marketing.
- E/86. Typographic Design and Layout.
- E/89. Basic Diploma Course in Advertising.
- E/90. Diploma Course in Advertising.

Short Courses

Each session, short courses are held consisting typically of eight to twelve lectures relating to special aspects of Building, Engineering or Printing Technology. Details of these are advertised in the newspapers.

**Trade Courses
(Day)**

Engineering

- D/126. Automobile Engineering. Block release.
- D/128. Automobile Engineering. Part-time.
- D/129. Automobile Engineering. Part-time.
- D/130. Motor Vehicle Parts (City & Guilds). Part-time.
- D/131. Motor Vehicle Electricians (City & Guilds). Part-time.
- D/132. Motor Mechanics. Part-time.
- D/133. Motor Vehicle Body Repair (City & Guilds). Part-time.
- D/134. Motor Vehicle Mechanics (City & Guilds). Part-time.
- D/141. Fitting and Turning. Block release.
- D/143. Gas and Electric Welding. Part-time.
- D/149. Sheet Metal.
- D/150. Metal Fabrication. Part-time.
- D/151. Heating Fitting. Part-time.

Printing

- D/183. Letterpress Machine Work. Block release.
- D/184. Photo Processes for Graphic Reproduction. Block release.
- D/188. Stereotyping and Electrotyping. Part-time.
- D/190. Compositors' Work. Block Release.
- D/191. Bookbinding and Warehouse Work. Block Release.
- D/192. Lithography and Photo-Lithography. Block Release.
- D/195. Film Make-up. Block release.

School of Trades

- D/101. Bricklaying. Part-time.
- D/102. Plastering. Part-time.
- D/105. Painting and Decorating. Part-time.
- D/107. Vehicle Building. Part-time.
- D/108. Vehicle Trimming. Part-time.
- D/111. Cabinet Making. Part-time.
- D/112. Upholstery. Part-time.
- D/113. Woodfinishing. Part-time.
- D/121. Carpentry & Joinery. Part-time.
- D/122. Woodcutting Machinists' Work. Part-time.
- D/145. Foundry Craft. Part-time.
- D/151. Plumbing/Heating Fitting. Part-time.

**Trade Courses
(Evening)**

Engineering

- E/133. Motor Vehicle Body Repair.
- E/134. Compression Ignition Engine Maintenance.
- E/136. Fork Lift Truck Maintenance.
- E/137. Warehouse Supervisors' Course.
- E/138. Fork Lift Truck Operators' Course.
- E/141. Fitting and Turning. Part-time.
- E/142. Motor Mechanics' Work (Advanced). Part-time.
- E/143. Gas and Electric Welding. Part-time.
- *E/144. Patternmaking. Part-time.
- *E/145. Foundry Work. Part-time.
- *E/149. Metal Plate Work. Part-time.
- *E/151. Heating Engineering Fitters. Part-time.

*Located in School of Trades.

Printing

- E/181. Book Finishing and Book-Edge Gilding, Artistic Book Finishing. Part-time.
- E/185. Linotype, Intertype and Teletypesetting. Part-time.
- E/186. Monotype Casting. Part-time.
- E/187. Monotype Keyboard. Part-time.
- E/195. Film Make-up. Part-time.

School of Trades

- E/101. Bricklaying. Part-time.
- E/105. Painting & Decorating. Part-time.
- E/107. Vehicle Building. Part-time.
- E/111. Cabinetmaking & Design. Part-time.
- E/112. Upholstery. Part-time.
- E/113. Wood Finishing. Part-time.
- E/121. Carpentry & Joinery. Part-time.
- E/122. Woodcutting Machinists' Work. Part-time.
- E/143A. Welding. Short Courses.
- E/148. Smith & Art Iron Work.
- E/151. Plumbing/Heating Fitting. Part-time.

Course	Level	Prerequisites	Notes
Engineering	First Course		
E101: Introductory Engineering	First		
E102: Introductory Engineering	First		
E103: Introductory Engineering	First		
E104: Introductory Engineering	First		
E105: Introductory Engineering	First		
E106: Introductory Engineering	First		
E107: Introductory Engineering	First		
E108: Introductory Engineering	First		
E109: Introductory Engineering	First		
E110: Introductory Engineering	First		
E111: Introductory Engineering	First		
E112: Introductory Engineering	First		
E113: Introductory Engineering	First		
E114: Introductory Engineering	First		
E115: Introductory Engineering	First		
E116: Introductory Engineering	First		
E117: Introductory Engineering	First		
E118: Introductory Engineering	First		
E119: Introductory Engineering	First		
E120: Introductory Engineering	First		
E121: Introductory Engineering	First		
E122: Introductory Engineering	First		
E123: Introductory Engineering	First		
E124: Introductory Engineering	First		
E125: Introductory Engineering	First		
E126: Introductory Engineering	First		
E127: Introductory Engineering	First		
E128: Introductory Engineering	First		
E129: Introductory Engineering	First		
E130: Introductory Engineering	First		
E131: Introductory Engineering	First		
E132: Introductory Engineering	First		
E133: Introductory Engineering	First		
E134: Introductory Engineering	First		
E135: Introductory Engineering	First		
E136: Introductory Engineering	First		
E137: Introductory Engineering	First		
E138: Introductory Engineering	First		
E139: Introductory Engineering	First		
E140: Introductory Engineering	First		
E141: Introductory Engineering	First		
E142: Introductory Engineering	First		
E143: Introductory Engineering	First		
E144: Introductory Engineering	First		
E145: Introductory Engineering	First		
E146: Introductory Engineering	First		
E147: Introductory Engineering	First		
E148: Introductory Engineering	First		
E149: Introductory Engineering	First		
E150: Introductory Engineering	First		
E151: Introductory Engineering	First		
E152: Introductory Engineering	First		
E153: Introductory Engineering	First		
E154: Introductory Engineering	First		
E155: Introductory Engineering	First		
E156: Introductory Engineering	First		
E157: Introductory Engineering	First		
E158: Introductory Engineering	First		
E159: Introductory Engineering	First		
E160: Introductory Engineering	First		
E161: Introductory Engineering	First		
E162: Introductory Engineering	First		
E163: Introductory Engineering	First		
E164: Introductory Engineering	First		
E165: Introductory Engineering	First		
E166: Introductory Engineering	First		
E167: Introductory Engineering	First		
E168: Introductory Engineering	First		
E169: Introductory Engineering	First		
E170: Introductory Engineering	First		
E171: Introductory Engineering	First		
E172: Introductory Engineering	First		
E173: Introductory Engineering	First		
E174: Introductory Engineering	First		
E175: Introductory Engineering	First		
E176: Introductory Engineering	First		
E177: Introductory Engineering	First		
E178: Introductory Engineering	First		
E179: Introductory Engineering	First		
E180: Introductory Engineering	First		
E181: Introductory Engineering	First		
E182: Introductory Engineering	First		
E183: Introductory Engineering	First		
E184: Introductory Engineering	First		
E185: Introductory Engineering	First		
E186: Introductory Engineering	First		
E187: Introductory Engineering	First		
E188: Introductory Engineering	First		
E189: Introductory Engineering	First		
E190: Introductory Engineering	First		
E191: Introductory Engineering	First		
E192: Introductory Engineering	First		
E193: Introductory Engineering	First		
E194: Introductory Engineering	First		
E195: Introductory Engineering	First		
E196: Introductory Engineering	First		
E197: Introductory Engineering	First		
E198: Introductory Engineering	First		
E199: Introductory Engineering	First		
E200: Introductory Engineering	First		

School of Architecture Surveying & Building

DAY COURSES

The School of Architecture offers a wide range of day courses in the fields of Surveying and Building. These courses are designed to provide students with the necessary knowledge and skills to enter the profession of Surveying or Building. The courses are taught by experienced lecturers and include practical work in the field. The day courses are suitable for students who are unable to attend the full-time course or who wish to gain additional qualifications. The day courses are also suitable for students who are already employed in the profession and wish to update their knowledge and skills. The day courses are offered in the following fields:

- Surveying
- Building

DAY COURSES

School of Architecture Surveying + Building

The School provides courses at technological and technician levels for occupations within the building industry, and brings together in the process of education those who will work together professionally in later careers. The Architect is responsible for the design and supervision of building projects while the Construction Economist, according to his specialisation, may be concerned, as quantity surveyor, with projects, economics or with the management of the building operation. The Environmental Economist has a similar role in the wider range of urban development and planning, or in estate management. The Geo-Surveyor is concerned with the land itself, its nature, its resources, and the measurement and definition of these. Employment opportunities in all cases exist in a range from personal professional consultancy to employment in architectural and building organisations and in State or municipal departments.

D/1A.

DIPLOMA COURSE IN ARCHITECTURE

This is a five-year whole-time course leading to the Diploma in Architecture which gives exemption from parts A & B of the Final Examinations of the Royal Institute of the Architects of Ireland. Graduates from the course become eligible for membership of the RIAI after they have completed the requirements relating to practical experience and professional practice.

Students are required to have not less than 75% attendance at lectures and studio work in each session before being eligible to take the sessional, or other examinations.

Entrance Standard The preliminary educational qualifications required for enrolment are as follows :—

- (a) The Secondary Schools Leaving Certificate with a minimum of two subjects at honours level or
- (b) The Matriculation Certificate of a recognised University, or
- (c) The General Certificate of Education with a minimum of two subjects at Advanced Level.

Subjects of Instruction are

First Year

Studio Work; Building Construction and Materials; History of Architecture; Theory of Architecture; Mathematics; Mechanics; Physics; Chemistry; Geometry.

Second Year

Studio Work; Theory of Architecture; History of Architecture; Building Construction and Materials; Building Services I; Theory of Structures; Craftwork.

Third Year

Studio Work; Theory of Architecture; Building Construction; Building Practice; Building Services II; Building Materials; Structural Engineering; Craftwork; Surveying and Levelling.

Fourth Year

Studio Work; Theory of Architecture; Building Construction; Structural Engineering; Professional Practice; Interior Design (including furniture design); Town Planning Theory (including Sociology); Economics and Cost Control; Landscape Design.

Fifth Year

Studio Work; Structural Engineering; Professional Practice; Town Planning (Theory); Specifications and Materials; Economics and Cost Control.

Note

Studio Work includes Architectural Drawing, Architectural Design, Building Construction, Drawing, Graphics and in the case of the First Year only, Geometrical Drawing, and in the case of the Fourth and Fifth Years Landscape Design.

Fee £53.00 per annum.

D/8.

CERTIFICATE COURSE FOR ARCHITECTURAL TECHNICIANS

This is a three-year whole-time course designed to train Architectural Technicians and leading to the Architectural Technicians' Certificate. The Final examination of the course is accepted as a qualification for Associate membership of the Institute of Architectural and Associate Technicians, and for membership after two years of practical experience. The course extends from mid-October to mid-May and during the Summer vacation students are required to gain approved practical experience in professional offices. This vacation work is optional between 1st and 2nd year and mandatory between the 2nd and 3rd year.

Entrance Standard The Secondary Schools' Leaving Certificate in five subjects which must include Mathematics and English.

Subjects

First Year

Maths, Building Science, Mechanics, Surveying & Levelling, Geometry, Building Construction, Free Drawing, History of Architecture, Architectural Drawing.

Second Year

Building Construction, Building Materials & Specifications, Building Science, Structures, Surveying & Levelling, Building Services, Architectural Drawing.

Third Year

Building Construction, Building Materials, Structures, Building Services, Surveying & Levelling, Structure of the Building Industry, Architectural Practice and Procedure.

Fee £33.00 per annum.

D/3B. DIPLOMA COURSE IN ENVIRONMENTAL ECONOMICS

A course leading to a Diploma in either Estate Management or Town Planning. The course is of four years' duration and designed to prepare students for Corporate Membership of the Royal Institution of Chartered Surveyors, the Chartered Auctioneers' and Estate Agents' Institute and the Irish Auctioneers' and Estate Agents' Association.

Subjects**First Year**

Mathematics; Science; Principles of Accounts; Economics; Construction Technology I; History of Property Rights and Introduction to Valuations; Communications.

Second Year

Principles of Valuation; Town and Country Planning; Land Economics; Local Government Social Services; Building Construction and Services; Principles of Law; Land Surveying; Computer Applications.

Third Year

Applied Valuations; Urban Economics; Maintenance of Buildings; Law; Town and Country Planning.

Fourth Year

(Estate Management)

Land Taxation; Applied Valuation II; Urban Economics II; Computer Applications; Arbitrations and Tribunals I.

(Town Planning)

Applied Town and Country Planning II; Applied Valuation II; Urban Economics II; Computer Applications; Arbitration and Tribunals I.

Practical Experience

Students are required to gain Industrial and Professional experience during the extended summer vacations.

Entry Qualifications

- (a) The Secondary Schools Leaving Certificate with a minimum Grade C in two subjects at higher level, or
- (b) The Matriculation Certificate of a recognised University, or
- (c) The General Certificate of Education with a minimum of two subjects at Advanced level.

Fee £53.00 per annum.

D/4B. DIPLOMA COURSE IN CONSTRUCTION ECONOMICS

A course leading to a diploma in either Building Management or Quantity Surveying. The course is of four years' duration and designed to prepare students for Corporate Membership of the Royal Institution of Chartered Surveyors, The Institute of Building, The Building Surveyors' Institute, The Institute of Quantity Surveyors and the Incorporated Association of Architects and Surveyors.

Subjects**First Year**

Mathematics; Science; Principles of Accounts; Economics; Construction Technology; History of Property Rights and Introduction to Valuations; Communications.

Second Year

Construction Technology II; Law; Applied Economics; Land Surveying; Cost Accountancy; Quantities; Applied Mathematics and Statistics; Computer Applications.

Third Year

Construction Technology III; Quantities; Law; Management & Work Study; Principles of Structural Design.

Fourth Year

(Quantity Surveying)

Quantities and Economic Analysis; Financial Administration; Site and Production Management; Computer Applications; Arbitration and Building Contract.

(Building Management)

Financial Management and Commercial Practice; Personnel Management and Human Relations; Site and Production Management; Computer Applications; Arbitration and Building Contracts.

Practical Experience

Students are required to gain Industrial and Professional experience during the summer vacations.

Entry Qualifications

- (a) The Secondary Schools Leaving Certificate with a minimum of Grade C in two subjects at higher level, or
- (b) The Matriculation Certificate of a recognised University, or
- (c) The General Certificate of Education with a minimum of two subjects at Advanced level.

Fee £53.00 per annum.

D/5. DIPLOMA COURSE IN GEO-SURVEYING

This is a four year course leading to a Diploma in Geo-Surveying and designed to prepare students for Associateship of the Land and/or Mineral Sections of the Royal Institution of Chartered Surveyors. Projects of a practical nature will be completed in the 1st, 2nd and 3rd years. A dissertation will be submitted in the Final year.

A pre-professional year when necessary, is available.

First Year

Mathematics; Physics; Elementary Surveying and Levelling; Astronomy; Principles of Law; Map and Air Photo Interpretation; Engineering Drawing; Economics and Statistics; Geomorphology.

Second Year

Mathematics; Engineering and Mining Surveying; Topographical Surveying; Law of Property; Geology; Astronomy.

Third Year

Trigonometrical, Geodetic and Topographical Surveying; Mining Law; Principles of Valuations; Geology Numerical Analysis; Computer Applications; Photolithography.

Fourth Year

Trigonometrical, Geodetic and Topographical Surveying; Cadastre; Computer Applications; Administrative Law; Hydrographic Surveying.

Minerals Surveying

Mining Surveying; Ground Movement in Mining Areas; Mineral Valuations; Administrative Law; Computer Applications; Economic Geology and Mineral Prospecting; Principles of Mining.

Practical Experience

Students are required to gain field experience during the summer vacations.

Entry Qualifications

- (a) The Secondary Schools Leaving Certificate with Mathematics and Science (preferably Physics) at higher level, or
- (b) The Matriculation Certificate of a recognised University, or
- (c) The General Certificate of Education with a minimum of two subjects at Advanced level.

Fee £53.00 per annum.

D/7. DIPLOMA COURSE IN HEALTH INSPECTION

A course of three years' duration organised in consultation with the Department of Health and the Health Inspectors' Training Board. The Department of Health is responsible for the selection of students. Enquiries regarding this course should be addressed to Health Inspectors' Training Board, Customs House, Dublin.

Subjects**First Year**

Biology; Micro Biology; Anatomy and Physiology; Chemistry; Physics; Building Construction I; Local Government Law and Administration; Food Hygiene; Public Health Law; Entomology and Parasitology; Meat Inspection; Sewage and Sewage Disposal; Philosophy I; Tutorial.

Second Year

Vital Statistics; Micro Biology; Food and Food Inspection; Port and Airport Sanitation; Pest Control; Heating, Lighting and Ventilation I; Atmospheric Pollution; Offensive Trades; Building Construction II; Public Health Law and Administration (Housing Law); Drainage; Water Supplies; Meat Inspection; Infectious Diseases; Public Cleansing; Philosophy II; Tutorial.

Third Year

Radiation; Health Education; Food and Food Inspection; Specifications and Quantities; Public Health Law and Administration; Water Supply; Atmospheric Pollution; Building Hygiene and Housing Administration; Heating, Lighting and Ventilation II; Building Construction III; Philosophy III; Tutorial.

Practical Experience

Students spend the periods of the summer vacations in the field.

Entry Qualifications

- (a) The Secondary Schools Leaving Certificate, or
- (b) The Matriculation Certificate of a recognised University, or
- (c) The General Certificate of Education.

Fee £53.00 per annum.

D/2B. HIGHER BUILDING TECHNICIANS' CERTIFICATE COURSE

A course leading to a Certificate in Building Technology.

The course is of three years' duration and designed to prepare students for Licentiatehip of the Institute of Building and the Building Surveyors' Institute and Technician Membership of the Incorporated Association of Architects and Surveyors.

The course is recognised by the City & Guilds of London Institute for purposes of the award of their Higher Construction Technicians' Diploma. It is also recognised by the Society of Surveying Technicians for membership after satisfactory completion of two years experience in a professional office.

Subjects **First Year**
Applied Mathematics; Construction Science; Principles of Accounts; Structure of the Industry; Construction Technology; Measurement & Costing; Elementary Surveying & Setting Out.

Second Year
Construction Technology and Services I; Structures and Concrete Technology; Mechanical Plant and Equipment; Applied Mechanics (Hydraulics of Soils) I; Site Surveying and Setting Out; Specifications and Quantities; Work Study I; Site Organisation and Administration I; Communications in Industry I.

Third Year
Construction Technology and Services II; Structures and Concrete Technology II; Mechanical Plant and Equipment II; Applied Mechanics (Hydraulics and Soils) II; Estimating and Costing; Work Study II; Measurement of Site Work; Site Organisation and Administration II; Communications in Industry II.

Practical Experience Students are required to gain Industrial experience during the summer vacations.

Entry Qualifications (a) The Secondary Schools Leaving Certificate, or
(b) The Matriculation Certificate of a recognised University, or
(c) The General Certificate of Education.

Fee £43 per annum.

SHORT-TERM COURSES

Short-term Courses in the Building and Project Management area will be held during the session.
These will be advertised in the National Press.

School of Engineering

The School of Engineering encompasses six departments, Engineering Technology, Automobile Engineering, Aeronautical Engineering, Mathematics and Science, Metal Fabrication and Engineering Trades. The academic work engaged upon in these departments ranges from craft to full professional level and further to post-graduate studies.

It is the School policy to provide an integrated system, horizontally in the range of technologies and vertically in their levels. In this way students may find courses suitable to their needs with opportunities for transfer or promotion to other disciplines.

The School maintains close links with industry through employers, vacation training, project work and research activities. The links with professional institutions are strongly maintained and there is a conscious awareness of the needs and trends in education and training.

A number of professional engineers graduate annually and their thorough preparation enables them to make a useful contribution to Irish Industry. Many continue to post-graduate work at home or abroad in Britain, Canada and the United States.

The College staff is aware of the growing need for technicians in Ireland and provision is constantly being made to meet the deficiency.

The Evening School continues to form an important part of the School of Engineering activities. Evening courses are kept under review and every attempt is made to assist technical personnel to keep abreast of technological developments.

TECHNOLOGICAL AND TECHNICIAN COURSES

D/42.

DIPLOMA COURSES IN MECHANICAL, PRODUCTION AND STRUCTURAL ENGINEERING

Common First Year

The courses have a common first year which consists of eight months' academic work commencing in mid-September, followed by three months' practical training in industry. Its prime purpose is to give students a good background in basic Science and Mathematics and to prepare them for entry to the 2nd year of the course in Mechanical, Structural or Production Engineering.

Entrance Requirements

(a) Leaving Certificate of the Department of Education with Grade C or better in the higher course in Mathematics and a Science subject preferably Physics.

(b) Such other qualifications as the College may deem to be appropriate.

Students who fail to meet the above entrance requirements may be considered for entry to the Preliminary Engineering Course (D40).

Course of Study

The subjects of the course are :
Mathematics, Applied Maths, Engineering Drawing, Engineering Technology, Experimental Physics, Chemistry, General Studies.

Membership of Professional Institutions

Students are strongly urged to apply to the appropriate Engineering Institution for Student Membership during their first year.

(1) MECHANICAL ENGINEERING

This is a sandwich course consisting of eight months' academic work each year commencing in mid-September, and three months' practical training in industry. The following schemes are in operation.

(a) **College-Based Scheme.** Suitable students are enrolled by the College, which then directs their academic studies and assists in arranging vacation training each summer.

(b) **Industry-Based Scheme.** Suitable students, whose employers are prepared to sponsor them for the duration of the course, may be admitted. Employers make arrangements with the student regarding the payment of fees, allowances and expenses, etc.

Course of Study

The subjects are as follows :

Second Year

Mathematics, Principles of Electricity, Applied Mechanics, Thermodynamics, Fluids, Engineering Drawing, Physics, Production Processes, General Studies, Workshop and Laboratory Work.

Third Year

Strength of Materials, Mechanics of Machines, Principles of Production, Thermodynamics, Fluid Mechanics, Electrotechnology and Controls, Mathematics and Statistics, Engineering Administration and Data Processing, Engineering Laboratory Work.

Final Year

Strength of Materials, Mechanics of Machines, Engineering Design, Applied Thermodynamics, Hydraulic Engineering, Electrotechnology and Controls, Mathematics and Computer Applications and Engineering Administration.

In the Final Year, students are required to carry out an individual design or research project and to submit a thesis on the work undertaken.

A PDP-8I Digital Computer is available and students are given a formal training in its use.

Examinations and Other Requirements

Students will not be permitted to advance to the next year of the course unless they

(a) have satisfied the examination requirements;

(b) have a suitable attendance record in each subject they are required to attend;

(c) have presented Laboratory and Year's Work to meet the standard required.

(d) have completed the vacation training programme for the year and submitted a satisfactory report thereon.

Award of Diploma in Mechanical Engineering (Dip.Eng.)

At the completion of the course students who have been successful in the Final examination and who have satisfactorily completed their project will be eligible for the award of the Diploma in Engineering. Students holding this Diploma meet the academic requirements for membership of the Institution of Engineers of Ireland and the Institute of Mechanical Engineers. It is also widely accepted by Universities in Ireland and abroad as meeting their academic requirements for entry into post-graduate courses.

Fee £53.00 per annum.

(2) PRODUCTION ENGINEERING

This course consists of eight months' academic work each year commencing in mid-September, and three months' practical training in industry. The entrance requirements and general scheme are as in the Mechanical Engineering Diploma Course up to Final Year.

Course of Study **Final Year**
Strength of Materials, Mechanics of Machines, Design for Production, Production Technology, Analysis of Manufacturing Systems, Electrotechnology and Controls, Mathematics and Computer Application, and Engineering Administration.

Each student is also required to undertake an individual design or research project and to submit a thesis on the work undertaken.

Award of Diploma in Production Engineering (Dip.Eng.)
At the completion of the course students who have been successful in the Final Examination and who have satisfactorily completed their project will be eligible for the award of the Diploma in Engineering. Students holding this Diploma meet the academic requirements of the Institution of Production Engineers and Institution of Engineers of Ireland.

Fee £53.00 per annum.

(3) STRUCTURAL ENGINEERING

This course consists of eight months' academic work each year commencing in mid-September and three months' practical experience in a design office or on site. The general scheme and entrance requirements are as in the Mechanical Engineering Diploma Course.

Course of Study The Course subjects are as follows:

Second Year
Mathematics, Physics, Fluids, Theory of Structures, Building Construction and Materials, Surveying, Environmental Science.

Third Year
Mathematics, Hydraulics, Theory of Structures, Design of Structures Concrete Technology, Geology and Soil Mechanics, Surveying, Administration and Computer Science.

Fourth Year

Mathematics, Specifications and Quantities, Theory of Structures, Design of Structures, Road and Municipal Engineering, Administration and Computer Applications and a Project.

Award of Diploma in Structural Engineering (Dip.Eng.)

At the completion of the course, students who have been successful in the Final Examination and who have satisfactorily completed their project will be eligible for the award of the Diploma in Structural Engineering. Students are encouraged to apply for Student Membership and later for Corporate Membership of the Institution of Engineers of Ireland and the Institution of Structural Engineers.

Fee £53.00 per annum.

D/39**DIPLOMA COURSE IN TRANSPORTATION TECHNOLOGY**

This is a four-year sandwich course consisting of eight months' academic work each year commencing in mid-September, and three months' practical training in industry.

Entrance Requirements to the Course
Leaving Certificate with a pass at Higher Level in both Mathematics and English and a pass at Ordinary Level in Physics or an equivalent qualification.

Course of Studies The subjects are as follows:

First Year
Motor Engineering, Mechanical Drawing, Mathematics, Chemistry, Physics, Heat Engines, Applied Mechanics, General Studies.

Second Year
Motor Engineering (theory and practical), Workshop Technology, Applied Science, Electro-technology, Industrial Psychology, Computer Science, Mechanics of Fluids, General Studies.

Third Year
Transportation Technology, Mechanics of Machines, Polymer Technology, Materials Handling, Strength of Materials, Computer Science, Hydraulic Engineering, Combustion Engineering, Mathematics and Statistics, Electro-technology and Electronics, General Studies, Project.

Final Year
Transportation Technology, Tero-technology, Traffic Engineering, Management Science, Project.

Examinations and other Requirements

Students will not be permitted to advance to a subsequent year of Course unless the following requirements are fulfilled:

- To have satisfied the examination requirements;
- To have a satisfactory attendance record in each subject they are required to attend;
- To have presented Laboratory and Year's Work Records to the satisfaction of the examiners;
- To have completed the vacation training programme for the year and submitted a satisfactory report thereon.

Award of Diploma in Transportation Technology

On completion of the course students who are successful in the Final Examinations and who have satisfactorily completed their project will be eligible for the award of the Diploma in Transportation Technology.

Fee £53·00 per annum.

Extern Lecturer and Examiner

Professor William Wright MA BSc PhD ScD CEng FICE

D/40.**PRELIMINARY ENGINEERING COURSE**

This is a one-year whole-time course commencing each year in mid-September. Its purpose is to prepare suitable students for entry to the Professional Course in Engineering or for positions as trainee technicians in the Engineering industry.

Entrance Requirements

Leaving Certificate of the Department of Education with good passes in Mathematics, English, and three other subjects; or equivalent.

Course of Study

The subjects studied are : Mathematics, Mechanics, Engineering Technology, Physics, Chemistry, Engineering Drawing, General Studies.

Examinations and Other Requirements

Students are required to

- take the College examinations at the end of the session and such other examinations as required ;
- have a satisfactory attendance record in all subjects ;
- present laboratory notebooks and year's work to the satisfaction of the College authorities.

Fee £33·00 per annum.

D/44**DIPLOMA IN MOTOR INDUSTRY MANAGEMENT**

This three-year wholtime course prepares students for entry into the many and varied responsible positions in the Motor Industry.

Classes begin in mid-September and end in May. Weekly attendance at lectures and practical work is approximately 30 hours.

Entrance Requirements

The entrance standard is Leaving Certificate or equivalent preferably with passes in Mathematics, Physics and English. Candidates will be called for interview before being finally accepted for admission to the course.

Course of Study

The course subjects are : Motor Vehicle Technology, Garage and Motor Workshop Practice, Motor Vehicle Science, Electro-Technology, Machine Drawing and Design, Laboratory (Engineering), General Studies including English, Industrial Engineering, Industrial Accountancy, Industrial Psychology, Motor Industry Practice, Motor Industry Management, Motor Industry Administration and Organisation (Service, Parts Department or Vehicle Sales), Management Economics, Mathematics, Physical Education.

Examinations and other Requirements

Progress to successive years of the course will be on the basis of the student's work during the session and success in the College sessional examinations. Permission to take the College sessional examinations will only be granted to students with at least 75% attendance.

An essential requirement of the course is that students spend 2-3 months of each Summer Vacation in suitable employment in the Motor Industry gaining appropriate experience. Where students are unable to arrange Summer employment the Graduate Society of the Institute of the Motor Industry and the College Authorities will assist in placing them for this purpose.

Fee £38·00 per annum.

D/43C CIVIL ENGINEERING TECHNICIANS' CERTIFICATE COURSE

This is a one-year wholetime course followed by two years of part-time studies, to prepare students as Civil or Structural Engineering Technicians or Draughtsmen. At the end of the first year successful students take up suitable employment and in the subsequent two years they attend the College on one day and two evenings per week.

They may also transfer to Course D/46C which enables them to continue their studies on a wholetime basis.

Entrance Requirements Leaving Certificate or equivalent, with Mathematics, and preferably Drawing and a Science subject.

Course of Study **First Year**
Mathematics, Engineering Science, Mechanics, Drawing, Surveying, Engineering Materials and Building Construction.

Second & Third Years

Seven subjects from the following:

Structural Engineering, Concrete Technology, Hydraulic Engineering, Soil Mechanics and Geology, Specifications and Quantities, Construction Equipment, Construction Technology, Surveying, and Engineering Administration.

Examinations and Other Requirements At the end of each year students take a College Examination.

Fee 1st year £33.00 per annum; 2nd and 3rd years £16.00 per annum.

D/43M. MECHANICAL ENGINEERING TECHNICIAN CERTIFICATE COURSE

This is a one-year whole-time course followed by two years of part-time studies which prepares students for careers as technicians in different specialisations in Mechanical Engineering. At the end of the first year successful students take up employment and in the subsequent two years they attend the College on one day and two evenings per week. They may also transfer to Course D/46M which enables them to continue their studies on a wholetime basis.

Entrance Requirements Leaving Certificate or equivalent, with Mathematics, and preferably Drawing and a Science subject.

Course of Study **First Year**
Maths, Mechanics, Engineering Science, Drawing, Workshop Technology, Instrument Technology, Mechanical Services and General Studies.

Second and Third Years
Subjects appropriate to the field of specialisation.

Examination Requirements At the end of each year
Students take a College Examination.

Fee 1st year £33.00 per annum; 2nd and 3rd years £16.00 per annum.

D/46H DIPLOMA COURSE IN HEATING AND VENTILATING ENGINEERING

This is a two-year sandwich course which prepares students for the College Examination leading to the Associateship of the Institution of Heating and Ventilating Engineers. It extends over 6 months of each year.

Entrance Requirements Students must have passed the Department of Education Intermediate Stage Technological Certificate in Mechanical Engineering and Electrical Engineering or have satisfactorily completed the first year of Course D/43M or D/46M.

They are also required to have had appropriate experience in a Heating and Ventilating Design Office.

Course of Study **First Year**
Building services principles including Energy Utilisation, Heat Transfer, Environmental Factors, Electricity, Water Supply, Refrigeration, Ventilation, Acoustics and Illumination.

Second Year

Building services engineering and design practice as related to Heating, Ventilation and Air Conditioning.

Fee for the course £38·00 per annum.

D/43V. HEATING, VENTILATING + AIRCONDITIONING TECHNICIANS' COURSE

This is a part-time day and evening course intended to prepare suitable students for the City & Guilds of London examinations for the Heating, Ventilating & Airconditioning Technicians' Certificate (No. 632).

Entrance Requirements

- (a) Satisfactory completion of the first year of Course D43M or
- (b) Dept. of Education Intermediate Technological Certificate or
- (c) Leaving Certificate with Honours in Mathematics, Physics and Drawing or
- (d) GCE "O" Level in Mathematics, Physics, Drawing, and English.

Course of Study

First Year
Heating & Hot Water Services, Drawing & Design, Principles of Electricity, Mechanics & Mechanics of Fluids, Ventilation & Air Conditioning.

Second Year

Heat Generation and Boilerhouse Practice, Ventilation & Air Conditioning, Heating & Hot Water Services.

Examinations and Other Requirements

At the end of the first year students take the Part I examination (No. 632) of the City & Guilds of London Institute, and they take Part II at the end of the second year.

Fee £16·00 per annum.

D/45. AIRCRAFT TECHNICIANS' COURSE

This course is a three-year sandwich course to train Aircraft Technicians for the ICAO Licensed Maintenance Engineers' Licences issued by the Department of Transport and Power. Students attend the College from September to May inclusive and spend the remainder of the year in the Aircraft Industry.

Entrance Requirements

- (a) Intermediate Certificate of the Department of Education in suitable subjects,
- (b) Day Group Certificate of the Department of Education in suitable subjects.

Course of Study**First Year**

French, English, Social Science, Physics, Mechanics, Mathematics, Drawing, Chemistry, Workshop Technology, Workshop Practice, Aero-Laboratory and PT.

Second Year

As above except Heat Engines instead of Physics.

Third Year

As above together with Materials.

Examination and Other Requirements

Students are required to pass examinations as follows :

- (a) At the end of the first year the Department of Education Junior Trade Group Certificates and Elementary Stage Technological Examinations in Mechanical Engineering.
- (b) At the end of the second year—the Department of Education Senior Trade Group Certificate, Intermediate Stage Technological Examinations in Mechanical Engineering and City and Guilds of London Institute Examination in Aeronautical Engineering Practice Part I.
- (c) At the end of the third year—the Department of Education Senior Turning and Senior Workshop Technology and the Department of Transport & Power basic L.M.E. Certificate.

Fee £33·00 per annum.

D/46C. CIVIL ENGINEERING TECHNICIANS' CERTIFICATE AND DIPLOMA COURSE

This sandwich course prepares students for technician qualifications in Civil or Structural Engineering. The students attend the College from the end of September until the end of May each year and they spend the Summer months gaining practical experience in approved design offices, construction sites, etc.

Entrance Requirements **First Year**
Leaving Certificate or equivalent with good passes in Mathematics, Physics, English and two other subjects.

Third Year
Students are expected to reach a high standard in the Certificate Examination at the end of the second year to qualify for admission to the third year Diploma Course.

Course of Study **First Year**, same as course D/43C.
Mathematics, Engineering Science, Mechanics, Drawing, Building Construction, Surveying, Engineering Materials and General Studies.

Second Year
Theory of Structure, Mathematics, Geology and Soil Mechanics, Surveying, Concrete Technology, Civil Engineering Construction, Hydraulics, Specifications and Quantities, Administration, Laboratory Work and General Studies.

Third Year
Theory of Structures, Structural Design, Municipal and Road Engineering, Mathematics and Computer Application, Construction Management. It is also necessary for each student to complete an individual design or investigation project during this year of the course.

Examination and Other Requirements (a) Students must take a College examination at the end of each session.
(b) They are required to submit a report on their Summer vacation training each year and also a report on their final year project.
(c) They must present laboratory notebooks and year's work to the satisfaction of the College Authorities.

Students awarded the Diploma may qualify for the Associateship grade of membership of the Institution of Engineers of Ireland. At the end of the second year they may qualify for the award of a Technician Certificate. Students who reach a high standard in the Certificate examinations may be accepted into a third year course leading to the award of a Technician Diploma.

Fee £38·00 per annum.

D/46M. MECHANICAL ENGINEERING TECHNICIANS' CERTIFICATE AND DIPLOMA COURSE

This sandwich course prepares students for a higher level technician qualification in Mechanical Engineering. The students attend the College for eight months each year commencing in October and they spend the summer period getting practical training in industry.

Entrance Requirements Leaving Certificate or equivalent with good passes in Mathematics, Physics, English and two other subjects.

Course of Study **First Year**
Mathematics, Applied Physics, Drawing, Mechanics, Engineering Materials, Workshop Technology and General Studies.

Second Year
Mathematics, Mechanics, Energy Utilisation, Production Technology, Drawing and Design, Experimental Method and Instrumentation, Engineering Laboratory and General Studies.

Third Year
Mathematics and Data Processing, Mechanics, Energy Utilisation, Production Technology, Process Control, Engineering Design, Administration and, a Project.

Examinations and Other Requirements (a) Students must complete a satisfactory course of studies and take a College examination at the end of each session.
(b) They are required to submit a report on their industrial training each year.
(c) They must present laboratory notebooks and year's work to the satisfaction of the College Authorities.

Fee £38·00 per annum.

D/47A. PART-TIME MECHANICAL ENGINEERING TECHNICIANS' COURSE

This part-time day course is intended to prepare suitable students for the City & Guilds of London examinations for Mechanical Engineering Technicians (255). The course is for technicians and draughtsmen engaged in the following types of employment :
Machine Tool Operation, Jig & Tool Design, Engineering Production and Design Draughtsmen.

Entrance Requirements Elementary Stage Technological Certificate of the Department of Education examinations in Mechanical Engineering, Leaving Certificate or full endorsement in Final Craft Certificate with suitable craft background.

Course of Study **First Year**
Workshop Processes and Practice, Engineering Drawing and Materials, Engineering Science, Mathematics, General Studies.

Second Year
Science and Mathematics, Drawing and Materials, Production Technology and General Studies.

Third Year
Production Technology, Mathematics and Statistics, Metrology and Management Studies.

Examinations and Other Requirements At the end of the first year students take the Part I examination of the City & Guilds of London Institute No. 255, Part II at the end of the third year, and Part III at the end of the fourth year.

Fee £16.00 per annum.

D/47B. MECHANICAL ENGINEERING TECHNICIANS' BLOCK-RELEASE COURSE

This is a block-release course which is intended to prepare suitable applicants for the City & Guilds Mechanical Engineering Technicians' examinations (255). The course is of four months' duration

Other details as for D/47A.

Fee £16.00 per annum.

D/127. MOTOR VEHICLE TECHNICIANS. PART-TIME

This part-time course prepares students for

- (1) The Department of Education Technological Certificate (Motor Car Engineering) and
- (2) The 390 City & Guilds of London Institute Motor Vehicle Technicians Certificate Parts I and II.

Duration of Course 38 weeks each year over 4 years.

Attendance 1 day (7 hours) and 2 evenings (6 hours) per week.

Subjects Motor Car Engineering, Engineering Science, Automobile Electricity, Mathematics, Machine Drawing and Construction, General Studies including English, Garage and Motor Workshop Practice, Laboratory (Engineering).

Entrance Qualifications Day Vocational Group Certificate or Intermediate Certificate with Honours in Mathematics, Science and one other subject.

Fee £11.00 per annum.

D/135. AUTO-ENGINEERING TECHNICIANS

Department of Education Advanced Motor Car Engineering Technological Certificate and the 390 Part III City & Guilds of London Institute Motor Vehicle Technicians' Full Technological Certificate.

Duration of Course 1 year part-time day (7 hours) and 2 evenings (6 hours) each week for 38 weeks.

Subjects Motor Car Engineering, Automobile Electricity, Heat Engines, Applied Mechanics, Garage Organisation and Management.

Entrance Qualifications Department of Education Intermediate Motor Car Engineering Technological Certificate (3 subjects) or the 390 City & Guilds of London Institute Parts I and II Certificate.

Fee £11.00 per annum.

TRADE COURSES

These courses are for apprentices and young journeymen in the Engineering Trades. Every facility is given to students who wish to enter for the Trade Certificate Examinations of the Department of Education or of the City & Guilds of London Institute.

These examinations are conducted in the College at the end of the session. The courses are based on the examination syllabuses of these bodies. Generally, students take the Junior Stage of the Trade Certificate Examinations of the Department of Education after two years' instruction and the Senior Stage after a further two years.

Fee £6.00 per annum except in the case of designated trades where admission is free.

D/126 AUTOMOBILE ENGINEERING

The Department of Education Group Trade Certificates, Block Release Course, with link correspondence course.

Duration of Course 11 weeks of 35 hours each week.

Subjects Garage Practice, Motor Workshop Practice, Motor Vehicle Theory, Motor Vehicle Science and Electricity, Mathematics and Craft Calculations, Technical Drawing, General Studies, Physical Education.

Entrance Qualifications Day Vocational Group Certificate or Intermediate Certificate.

D/128 AUTOMOBILE ENGINEERING

The Department of Education Group Trade Certificate, Junior Stage, and
The City and Guilds of London Institute Motor Vehicle Mechanics Certificate (375) Part I.

Duration of Course 2 years of 38 weeks each year.

Attendance 1 day (7 hours) and 2 evenings (6 hours) each week.

Subjects Motor Vehicle Technology, Motor Vehicle Electricity, Engineering Science, Mathematics, Technical Drawing, Garage and Motor Workshop Practice, General Studies.

Entrance Qualifications Day Vocational Group Certificate or Intermediate Certificate.

D/129 AUTOMOBILE ENGINEERING

The City and Guilds of London Institute Motor Vehicle Mechanics' Certificate (375) Part II.

Duration of Course 2 years of 38 weeks each year.

Subjects A more advanced treatment of the subjects included in the Part I (375) course (D/128).

Entrance Qualifications (375) Part I of the Certificate.

D/130 AUTOMOBILE ENGINEERING

The City and Guilds of London Institute Motor Vehicle Parts Department Practice Certificate (376).

Duration of Course 2 years part-time day and evening course (9 hours per week).

Subjects Parts Merchandising, Commercial Practice and Office Procedures, Stores Administration, Motor Vehicle Knowledge, General Studies including English.

Entrance Qualifications (375) Part I of the Certificate.

D/131 AUTOMOBILE ENGINEERING

The City and Guilds of London Institute Motor Vehicle Electricians' Course (375).

Duration of Course 2 years part-time day and evening course (9 hours per week).

Subjects Motor Vehicle Technology ; Motor Vehicle Electricity ; Engineering Science and Mathematics ; Technical Drawing ; Electrical Workshop Practice ; General Studies.

Entrance Qualifications (375) Part I of the Certificate.

D/132 AUTOMOBILE ENGINEERING

The Department of Education Group Trade Certificate, Senior Stage.

Duration of Course 3 years of 38 weeks each year.

Attendance $\frac{1}{2}$ day (3 $\frac{1}{2}$ hours) and 2 evenings (6 hours) each week.

Subjects Garage Practice ; Motor Workshop Practice ; Motor Vehicle Theory ; Motor Vehicle Science and Electricity ; Mathematics and Craft Calculations ; Technical Drawing ; General Studies.

Entrance Qualifications The Department of Education Group Trade Certificate, Junior Stage

D/133 AUTOMOBILE ENGINEERING

City and Guilds of London Institute Motor Vehicle Body Repair Endorsement—375 Part III.

Duration of Course 1 year part-time day and evening (9 hours per week).

Subjects Motor Body Technology ; Drawing and Sketching ; Motor Body Workshop Practice ; Materials used in Motor Body Construction: Refinishing Practice.

Entrance Qualifications City and Guilds of London Institute Motor Vehicle Mechanics Certificate, 375 Parts I and II.

D/134 AUTOMOBILE ENGINEERING

The City and Guilds of London Institute Compression Ignition Engine Maintenance Work Endorsement on 375 Certificate—375 Part III.

Duration of Course 1 year part-time day and evening course (9 hours per week).

Subjects Compression Ignition Engine Technology ; Compression Ignition Engine Maintenance ; Fuel Injection System Maintenance.

Entrance Qualifications City and Guilds, Motor Vehicle Mechanics Certificate 375 Parts I and II.

D/141 FITTING AND TURNING

Junior and Senior Trade Certificates, Department of Education.

Duration of Course Four year block release course (11 weeks duration).

Subjects Workshop Practice and Theory, Mathematics, Engineering Science, Technical Drawing, Physical Training, General Studies.

D/142B MECHANICAL ENGINEERING CRAFT PRACTICE

City & Guilds of London Mechanical Engineering Craft Practice (Course 155 Part II).

Duration of Course One year part-time day course (1 day per week).

Entry Qualifications Part I of the Certificate or Senior Trades Certificate.

D/142C MECHANICAL ENGINEERING CRAFT PRACTICE (FITTING PROCESSES)

City & Guilds of London Mechanical Engineering Craft Practice Supplementary Examination.

Duration of Course One year part-time day course (1 day per week).

Entry Qualifications Part II of Certificate (155).

D/142D MECHANICAL ENGINEERING CRAFT PRACTICE (MACHINING PROCESSES)

City & Guilds of London Mechanical Engineering Craft Practice Supplementary Examination in Machine Processes.

Duration of Course One year part-time day course (1 day per week).

Entry Qualifications Part II of the Certificate (155).

***D/143 GAS+ELECTRIC WELDING**

A five-year Course requiring attendance on one day per week.
This Course meets the requirements of the Irish Welding Association qualification tests for Welders.

***D/149 SHEET METAL**

A four-year course requiring attendance on one day and two evenings per week.

***D/150 METAL FABRICATION**

A four-year course requiring attendance on one day and one evening per week.

***D/151 PLUMBING/HEATING FITTING**

A four-year Course requiring attendance on one day per week.
*Conducted in the School of Trades.

School of Printing + Book Production

The School of Printing and Book Production offers courses at technological/technician level as follows :

- D/81 Higher Printing Education
- D/81A Printing Technology
- D/81B Printing Production Management
- D/82 Training for Administrative Staff
- D/86 Design for Printing
- E/83 Applied Printing
- E/83A Printing Office Procedure
- E/84A Cost Accountancy for Printers
- E/84B Cost Estimating for Printing
- E/85 Paper Technology and Marketing
- E/86 Typographic Design and Layout
- E/89 Basic Diploma Course in Advertising
- E/90 Diploma Course in Advertising

Courses up to Advanced Level are held as follows :

COMPOSING

The Composing Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The curriculum includes instruction in Theory, Practice, Typographic Design, Mechanical Composition, Photo-composition including filmsetting and make-up, Applied Science, Liberal Studies and Irish.

PHOTOTYPOGRAPHY

Courses in this section are for re-training compositors in the latest composing techniques in Film Assembly and Photo Headliner display setting.

There are also keyboard conversion courses on the IBM Composition System, combined with Photo Headliner display setting and paper make-up techniques.

The above mentioned techniques are also integrated in the existing block release schemes for apprentices from industry, also the Higher Printing Education Course.

LETTERPRESS MACHINE PRINTING

The Letterpress Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The equipment includes a wide variety of handfed and automatic platens, automatic cylinder presses and a two-colour sheet-fed-rotary. Various types of anti set off spray are in use and a wide variety of ancillary aids and measuring instruments are provided, including pre-make ready equipment, mechanical overlays, a precision proofing press and a duplex register table. The curriculum includes instruction in Theory, Practice, Applied Science, Liberal Studies and Irish.

LITHOGRAPHY AND PHOTO LITHOGRAPHY

The Lithographic Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The course provides a sound training in Photolithographic platemaking, step and repeat work and offset printing. It includes instruction in the Theory and Practice of Platemaking and Press operation, Applied Science and Liberal Studies.

BOOKBINDING AND PRINT FINISHING

The Bookbinding Department covers the requirements of the Department of Education Syllabus up to Senior level and of the City and Guilds Advanced Certificate Syllabus. The course provides experience in hand and mechanised bookbinding, finishing and print finishing processes and includes instruction in technical Theory and Practice, Applied Printing, Applied Science, Design and Liberal Studies.

TECHNICIAN COURSES

D/82

TRAINING FOR ADMINISTRATIVE STAFF

This course is intended for those engaged in the administrative side of printing with a view to preparing them for higher administrative posts in the industry.

The age group for trainees is between 18 and 24 years, and the minimum educational qualification required is the Department of Education Leaving Certificate.

To secure optimum results the numbers enrolled for the course will be limited to a maximum of twelve each year.

The course occupies three years and attendance for one day and two evenings each week is required.

Year One

Principles of Accounts, Structure of Commerce, Economic History. Practical appreciation of the techniques of the work of hand and mechanical composing; Bookbinding and Print Finishing; Graphic Reproduction; General Technical Knowledge.

Year Two

Principles of Economics, Printing Office Procedure, Practical appreciation of the techniques of letterpress machine printing, photo-litho platemaking and offset lithographic printing; photo-composition, typewriter composition, film and paper make-up; Cost Accountancy for Printers, Estimating for Printers, Production Planning.

Year Three

Industrial Law, Work Study, Communications in Industry, Principles of Management, Financial Accounting, Cost Accountancy for Printers, Estimating for Printers, Business Organisation, Production Planning.

Fee £16.00 per annum.

D/81 HIGHER PRINTING EDUCATION

This is a two-year block release course of 12 weeks each year for selected students to prepare them for positions of responsibility in the industry. Candidates for this course will be of senior or post apprenticeship status in the age group 20-25 years and a maximum number of twelve will be enrolled each session. Selection will be based on a satisfactory result to interview and the minimum qualification is the Senior Certificate of the Department of Education—or its equivalent—in the various disciplines. The field of study will be concentrated mainly on Technology, Management and Science. Students will be required to prepare and submit, under supervision, projects in each of these areas. The course will be supplemented by visits to industry, paper and ink laboratories and by lectures on particular topics from external lecturers.

Fee £21.00 per annum.

D/81A PRINTING TECHNOLOGY

Composing, Letterpress Machine Printing, Lithography and Photo Lithography, Bookbinding and Print Finishing Processes.

Entrance Requirements

Senior Trade Certificate (with Pass in Science)

These are courses requiring attendance at the College for a day and two evenings (12 hours) weekly per session. The courses are aimed at preparing students for the Advanced Examination of the City and Guilds of London Institute.

Fee £11.00 per annum.

D/86 TYPOGRAPHIC DESIGN (Diploma Course in)

This course shall normally occupy two years and may be taken by means of either day or evening classes.

Object

The course is intended for those engaged in printing and publishing houses, advertising agencies and studios. The aim of the course is to enable the student to execute a wide variety of different practical design problems in the field of typographic design; projects are set relating to the many different aspects of typography.

Entrance Requirements

Senior Trade Certificate of the Department of Education. (Students who have not a Senior Certificate in a printing subject are advised to take the Applied Printing course as well).

Fee £11.00 per annum.

TRADE COURSES

These courses are for apprentices and young journeymen in the Printing, Bookbinding and Process Engraving Trades. Every facility is given to students who wish to enter for the Trade Certificate Examinations of the Department of Education or of the City & Guilds of London Institute. These examinations are conducted in the College at the end of the session. The courses are based on the examination syllabuses of these bodies. Generally, students take the Junior Stage of the Trade Certificate Examinations of the Department of Education after one year's instruction, the Intermediate stage after two years' instruction, and the Senior Stage after three years.

Fee £6.00 per annum except in the case of designated trades where admission is free.

D/183 LETTERPRESS MACHINE PRINTING (Block-release course)

Consecutive courses of 12-13 weeks' duration for first, second and third year apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabi for the Junior, Intermediate and Senior Trade Certificate Examinations in Letterpress Machine Work. An examination in each stage is set by the Department of Education at the conclusion of each course.

D/184 PHOTO PROCESSES FOR GRAPHIC REPRODUCTION

A block-release course of 12-13 weeks' duration for first and second year apprentices.

D/188. STEREOTYPING AND ELECTROTYPING

A 4-year part-time course for first, second, third and fourth year apprentices of 4½ hours day instruction.

D/190 COMPOSING (Block release Course)

Consecutive courses of 12-13 weeks' duration for first, second and third year apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabi for the Junior, Intermediate and Senior Trade Certificate Examinations in Composing. An examination in each stage is set by the Department of Education at the conclusion of each course.

D/191 **BOOKBINDING** (Block Release Course)

A block-release course of 12-13 weeks' duration for first, second and third year apprentices. During each course, the apprentices attending complete a stage of the Department of Education syllabi, the Junior, Intermediate and Senior Trade Certificate examinations in Bookbinding. An examination in each stage is set by the Department of Education at the conclusion of each course.

D/192 **LITHOGRAPHY AND PHOTO-LITHOGRAPHY** (Block release Course)

Consecutive courses of 12-13 weeks' duration for first, second and third year apprentices. During each course the apprentices attending complete a stage of the Department of Education's syllabi for the Junior, Intermediate and Senior Trade Certificates Examination in Lithography and Photo-Lithography Work. An examination in each stage is set by the Department of Education at the conclusion of each course.

D/195 **FILM ASSEMBLY AND PHOTOCOMPOSING THEORY**

This is a full-time course of 7 weeks duration for trainees from industry, at the end of which a certificate examination is taken. The course covers all aspects of Film Assembly both practical and theory, also complete theoretical breakdown of the Linofilm System of Photocomposition.

D/195A **FILM ASSEMBLY AND PHOTO HEADLINER DISPLAY TECHNIQUES**

Course for nightworkers (compositors and senior apprentices). Duration of course is 26 weeks with attendance for 2½ hours on one afternoon per week. Course content is the same as E/195.

Fee £6.00 per annum.

School of Trades

Part-time day and evening classes for apprentices, craftsmen, and technicians actually engaged in the construction, furniture, vehicle building, and metal fabrication industries.

DAY CLASSES

Part-time day courses (D/101 - D/153) are organised for apprentices in the industries referred to above. The students are released from work, by their respective employers, to attend classes on one full day weekly. The various courses lead, over a period of four years, to the Senior Trade Tests (Theory & Practice) of the Department of Education and the relevant examinations of the City and Guilds of London Institute. Opportunities are available for students to proceed to further courses on completion of their apprenticeship. Technician courses, involving attendance on one full day and two evenings weekly, are offered to suitably qualified persons engaged in the Construction Industry. These courses, D/4C & D/153A, prepare students for the Construction Technicians' Certificate (Parts I & II) No. 626, and the Plumbing Technician's Certificate (Parts I & II) No. 631 of the City and Guilds of London, respectively.

EVENING COURSES

Evening Trade Courses, mainly at the more advanced levels, are organised on the basis of attendance on two evenings weekly. Provision is made for students to take the relevant trade tests. The School also provides a comprehensive course in Building Construction and associated subjects for those engaged in the Construction Industry. The course content is based on the syllabus of the Department of Education Technological Examinations in Building at Elementary, Intermediate and Advanced levels.

DAY COURSES

PART-TIME DAY RELEASE CLASSES FOR APPRENTICES

- D/101. Bricklaying.
- D/102. Plastering.
- D/105. Painting and Decorating.
- D/107. Vehicle Building.
- D/108. Vehicle Trimming.
- D/111. Cabinetmaking.
- D/112. Upholstery.
- D/113. Woodfinishing.
- D/121. Carpentry and Joinery.
- D/122. Woodcutting Machinists' Work.
- D/143. Welding.
- D/145. Foundry Work.
- D/149. Sheetmetal Work.
- D/150. Metal Fabrication.
- D/151. Plumbing/Heating Fitting.

PART-TIME DAY RELEASE COURSE FOR TECHNICIANS

D/4C & D/4D TECHNICIANS IN THE CONSTRUCTION INDUSTRY

- Objectives** The Course is designed to prepare students for the Construction Technician's Certificate and the Licentiate examinations of the various professional bodies in the Building Industry.
- Entry Qualifications** Students are required to be employed in the construction industry and to have an educational qualification of Leaving Certificate standard, or equivalent.
- Duration** The Course is of four years duration involving attendance on one full day and two evenings each week.
- Fee £11.00 per annum.

Trade Courses

Course Content, Etc.

First Year

Construction Technology and Services, Construction Science and Calculations, Principles of Structural Design, Safety Regulations, Examination: Part I City & Guilds of London Construction Technician's Certificate (626).

Second Year

Construction Technology and Services, Land Surveying and Setting Out, Measurement and Price Build-up.
Examination: College based.

Third Year

Construction Technology and Services, Land Surveying and Setting Out, Measurement and Price Build-up, Site Organisation and Administration.

Examination: Part II (Final) City & Guilds of London Construction Technician's Certificate (626).

Fourth Year

Construction Technology and Principles of Design of Structural Elements, Site Organisation and Administration, Services and Equipment, Measurement and Economics.
Examination: Licentiate of professional bodies.

General

Students entering the Course should realise that a considerable amount of private study must be undertaken by them if they are to maintain progress in the various subjects. In particular, they will be required to prepare, for external assessment, a number of projects dealing with Construction Technology, Measurement and Price Build-up, and Site and Land Surveying. From four to six projects will be expected under each heading in second and subsequent years.

D/153A

PLUMBING TECHNICIANS

Subjects of the course include Hot and Cold Water Systems, Domestic Central Heating, Gas Supply Installations, Sanitation and Drainage, Roofwork and Weathering, Plumbing Drawing and Design, Mechanics of Fluids, Measurements and Specifications, Site Procedures.

Entry Qualifications

- (i) Leaving Certificate or equivalent.
- (ii) Employment in the Plumbing Industry.

Tuition Fee £11.00 per annum.

EVENING COURSES

School of Architecture, Surveying + Building

TECHNOLOGICAL AND TECHNICIAN COURSES

E/2 CONSTRUCTION INDUSTRY (SHORT TERM COURSE)

A one year Course to prepare students for the final examinations of the Royal Institution of Chartered Surveyors, the Institute of Quantity Surveyors and the Institute of Building.

Fee £16.00 per annum.

E/3. TIMBER TECHNOLOGY

A three-year evening course to prepare students for the final examinations of the Institute of Wood Science.

Fee £11.00 per annum.

TECHNOLOGICAL AND TECHNICIAN COURSES

E/41. GRADUATE COURSES IN ENGINEERING

A 4/5-year course to prepare students for the examination of the following Professional Engineering bodies :

- (1) Institution of Engineers of Ireland.
- (2) Council of Engineering Institutes (CEI).

Courses will be offered if there are sufficient applicants of a suitable educational standard for the following:

- (a) Institution of Engineers of Ireland Part II Examination.

A selection of subjects will be offered in both Civil and Mechanical Engineering to suit the majority of the applicants.

Prospective students should indicate their choice of optional subjects.

- (b) Council of Engineering Institution (CEI) Part I.

Some or all of the following subjects may be offered: Mathematics, Mechanics, Thermodynamics, Electrotechnology, Properties of Materials and Presentation of Engineering Information. Some of these subjects may also be offered by the College of Technology, Kevin Street, Dublin 8.

Before entry applicants must meet the requirements of the appropriate Institution for Student Membership. Generally the requirements for the CEI are Advanced Level GCE in Mathematics and Physics and Ordinary Level GCE in English and two other subjects. The requirements for the student membership of the Institution of Engineers of Ireland are Leaving Certificate with Honours or GCE Advanced Level in Mathematics and four Ordinary Level subjects including English and Physics.

Fee £11.00 per annum.

E/54. STRUCTURAL DESIGN

This is a one-year advanced course intended for those who wish to sit the Final Design examination of the Institution of Structural Engineers. Depending on demand there may be options in Steel or Concrete Design.

Fee £11.00 per annum.

E/56. ENGINEERING MANAGEMENT COURSE

This is a one-year non-qualifying course intended for trainee engineering managers.

Students should have reached the Leaving Certificate standard of general education or equivalent and be suitably employed as managers or supervisors in the engineering industry.

Course of Study Plant layout and materials handling.
Production planning and control.
Operations research and statistics.
Computer applications and programming.

Fee £11.00 per annum.

E/40. GENERAL CERTIFICATE OF EDUCATION (GCE) COURSE

These are intended for students who have not reached the required standard of entry into Professional and Higher Level Technician Courses.

Ordinary Level The following subjects may be offered :
English, Pure Mathematics, Additional Pure Mathematics, Physics, Chemistry, Technical Drawing, and Surveying. The entrance standard is Leaving Certificate or Department of Education Elementary Technological Certificate in Mechanical Engineering including Mathematics or equivalent.

Advanced Level The following subjects may be offered :
Pure Mathematics, Applied Mathematics, Physics and Technical Drawing. The entrance standard is Leaving Certificate Honours or GCE Ordinary level in the appropriate subjects.

Fee per annum:
£8.50 for four subjects.
£1.50 for each additional subject.

E/42. TECHNOLOGICAL CERTIFICATE COURSE IN MECHANICAL ENGINEERING

A 5/6-year course to prepare students for the Certificate examinations of the Department of Education in Mechanical Engineering as follows :

At the end of the Second year—Elementary Stage. Subjects: Maths, Mechanics, Heat, Drawing.

At the end of the Third year—Intermediate Stage. Subjects: Maths, Mechanics, Heat Engines, Drawing.

At the end of the Fourth year—Advanced Stage. Subjects: Maths, Mechanics, Heat Engines, Drawing.

At the end of the Fifth/Sixth year—Higher Technological Stage in selected subjects.

The entrance requirements are Department of Education Intermediate Certificate or Day Group Certificate with passes in Mathematics, English and a Science Subject.

Fee £11·00 per annum.

E/43C. CIVIL ENGINEERING TECHNICIANS' CERTIFICATE COURSE

This is a four-year evening course to prepare students in suitable employment for a College Civil Engineering Technicians' Certificate. Entrance requirements are Leaving Certificate or GCE equivalent.

Subjects**First & Second Years**

Maths, Mechanics, Engineering Science, Drawing, Building Construction, Surveying and Materials.

Third & Fourth Years

Structures, Civil Engineering Construction, Surveying, Concrete Technology, Administration, Specifications and Quantities, Geology, Soil Mechanics.

Fee £11·00 per annum.

E/43 N. INSTRUMENTATION TECHNICIANS COURSE

This is a four-year evening course to prepare students employed as Instrument Technicians for the Part II 275 City & Guilds Instrumentation Technicians Certificate. The entrance requirements are Leaving Certificate (including Maths and Physics) or Department of Education Elementary Technological Certificate or equivalent.

Subjects**First & Second Years**

Workshop Processes and Drawing, Mathematics and Instrument Science.

Third & Fourth Years

Instrument Technology, Automatic Control, Electronic and Electrical Instrumentation.

Fee £11·00 per annum.

E/43M. MECHANICAL ENGINEERING TECHNICIANS

This is a four-year evening course to prepare students in suitable employment for a College examination leading to the award of a Mechanical Engineering Technician Certificate. The entrance requirements are Leaving Certificate or GCE equivalent.

Subjects

Mathematics, Mechanics, Engineering Science, Drawing, Workshop Processes, Instrument Technology.

Fee £11·00 per annum.

E/43S. STRUCTURAL ENGINEERING DESIGN/DETAILING

This is a two-year course intended for those who have experience in structural drawing offices and are preparing for Parts I and II of the City & Guilds Structural Engineering Courses No. 630. The entrance requirement is Leaving Certificate or equivalent.

Subjects**First Year**

Mathematics, Science and Mechanics, Materials, Structural Detailing, Construction Practice.

Second Year

Structural Theory, Design and Detailing of Structural Elements, Construction Practice.

Fee £11·00 per annum.

E/44. MOTOR INDUSTRY MANAGEMENT COURSE

Final Associate Membership Examinations (External) of the Institute of the Motor Industry.

Duration of Course 2 years evening (6 hours per week) for 26 weeks each year.

Subjects Motor Industry Practice.
Motor Industry Management.
Motor Industry Accountancy.
Motor Industry Administration and Organisation (Services Department, Parts Department or Vehicle Sales).

Entrance Qualifications Department of Education Advanced Motor Car Engineering Technological Certificate or the City and Guilds of London Institute Motor Vehicle Technicians' Certificate Parts I and II.

Fee £11·00 per annum.

E/43V. HEATING, VENTILATING AND AIRCONDITIONING

This is a two-year evening course to prepare students for the Part I and Part II examinations of the City & Guilds of London Institute—Heating, Ventilating and Airconditioning Technicians (632).

It is a supplement to Course D/43V but may also be attended by students unable to obtain day release.

Fee £11·00 per annum.

E/57. ENGINEERING WORKS MANAGERS' COURSE

This two-year evening course is intended for engineering technicians and trainee engineering works managers.

Entrance Requirements Students should have reached the Leaving Certificate standard of general education and be suitably employed as managers or supervisors in industry.

Course of Study **First Year**
Works Management, Industrial Economics, Psychology and Sociology, Statistics.

Second Year
Accountancy, Industrial Law, Management Techniques, Personnel Management.

Examination and Other Requirements Students must pass at college examinations at the end of each year. Those who successfully complete the course will be exempt from the Certificate Examination requirements of the Institute of Works Managers and hence can qualify for Graduate Membership of that body. Students are required to apply for student membership within one month of enrolling for the Course.

Fee £11·00 per annum plus an examination fee.

E/45. AERONAUTICAL ENGINEERING TECHNICIANS

This course provides instruction for aircraft maintenance engineers who desire to take the Licence Examinations of the Department of Transport and Power.

Fee £11·00 per annum.

E/47. MECHANICAL ENGINEERING TECHNICIAN COURSE

This is a four-year evening course to prepare students for the examinations of the City & Guilds Institute for Mechanical Engineering Technicians Course (255). Students should have a suitable craft background and hold the Elementary Technological Certificate in Mechanical Engineering, GCE, Leaving Certificate or equivalent.

Fee £11·00 per annum.

- E/49. AUTOMOBILE ENGINEERING COURSE**
 Department of Education Technological Certificate
 (Motor Car Engineering).
- Duration of Course** 5 years evening (9 hours per week).
- Subjects** Motor Car Engineering.
 Engineering Science and Mathematics.
 Automobile Electricity.
 Engineering Laboratory.
 General Studies including English.
 Drawing and Sketching.
- Entrance Qualifications** Day Vocational Group Certificate or Intermediate Certificate with Honours in certain specified subjects.
- Fee £11.00 per annum.

- E/50 DATA PROCESSING FOR COMPUTER USERS**
 This is a one-year course in which students are prepared for the City & Guilds Examination No. 748 (Data Processing for Computer users).
- Entrance Requirements** Leaving Certificate with Commercial or Industrial experience.
- Fee £11.00 per annum.

- E/52. PLUMBING TECHNICIANS**
 This is a two-year course for students who have a good detailed craft knowledge to prepare them for posts as Plumbing Designers, Estimators or Supervisors. Entrance qualifications are the Senior Stage Certificate (Plumbing) of the Department of Education or 1st Class Pass in Plumbers Work (Final Stage) of the City & Guilds of London Institute or equivalent.
- Fee £11.00 per annum.

- E/58 REFRIGERATION ENGINEERING TECHNICIANS**
 This is a two-year course for Technicians employed in the refrigeration engineering industry. Suitable students are prepared for the 257 City & Guilds of London Institute examinations in Science and Technology of Refrigeration. The subjects of instruction are :
 Basic Thermodynamics, Refrigeration Processes and Refrigeration Machinery.
- Fee £11.00 per annum.

- E/135. AUTOMOBILE ENGINEERING**
 Department of Education Advanced Motor Car Engineering Technological Certificate and the 390 City & Guilds of London Institute Motor Vehicle Technicians' Full Technological Certificate (Part III).
- Duration of Course** 2 years evening (9 hours per week) for 26 weeks each year.
- Subjects** Motor Car Engineering.
 Automobile Electricity.
 Heat Engines.
 Applied Mechanics.
 Garage Organisation and Management.
- Entrance Qualifications** Department of Education Intermediate Motor Car Engineering Technological Certificate (3 subjects) or 390 the City & Guilds of London Institute Parts I and II Certificate.
- Fee £11.00 per annum.

- E/139. MATERIALS HANDLING COURSE**
 Graduate Membership of the Institute of Materials Handling.
- Duration of Course** 3 years evening of 6 hours per week.
- Subjects** Materials Handling Technology.
 Materials Handling Equipment.
 Materials Management.
 Industrial Engineering.
- Entrance Qualifications** Department of Education Leaving Certificate or an equivalent qualification.
- Fee £11.00 per annum.

TRADE COURSES

The following evening courses are provided for Engineering Trade apprentices. Students are prepared for appropriate examinations conducted by the Department of Education and the City & Guilds of London Institute.

Course E/141. Fitting & Turning.
Course E/143. Gas+Electric Welding.
Course E/144. Patternmaking.
Course E/145. Foundry Work.
Course E/149. Metal Plate Work.
Course E/151. Heating Engineering Fitters.

Fee £5.50 per annum.

E/133. MOTOR VEHICLE BODY REPAIR COURSE

375 City & Guilds of London Institute Motor Vehicles Body Repair Endorsement Part III.

Duration of Course 2 years evening (6 hours per week).

Subjects Motor Body Technology.
Drawing and Sketching.
Motor Body Workshop Practice.
Materials used in Motor Body Construction.
Refinishing Practice.

Entrance Qualifications 375 City & Guilds of London Institute Motor Vehicle Mechanics Certificate, Parts I and II.

E/134. COMPRESSION IGNITION COURSE

375 City & Guilds of London Institute Compression Ignition Engine Maintenance Certificate, Part III.

Duration of Course 2 years evening (6 hours per week).

Subjects Compression Ignition Engine Technology.
Compression Ignition Engine Maintenance.
Fuel Injection System Maintenance.

Entrance Qualifications 375 City & Guilds of London Institute Motor Vehicle Mechanics' Certificate, Parts I and II.

E/136. FORK LIFT TRUCK MAINTENANCE COURSE

Duration of Course 6 weeks of 5 hours each week (30 hours).

Subjects Electro-Hydraulic Equipment,
i.e. Engine Overhaul and Maintenance.

Entrance Qualifications Senior Group Trade Certificate of the Department of Education.

E/137. WAREHOUSE SUPERVISORS (MATERIALS HANDLING) COURSE

Duration of Course 6 weeks of 5 hours each week (30 hours).

Subjects Type of Equipment used in Materials Handling.
Warehouse Layout.
Safety in the Warehouse.

Entrance Qualifications In employment as a warehouse supervisor or with a firm offer.

E/138. FORK LIFT TRUCK OPERATORS' COURSE

Duration of Course 6 weeks of 5 hours each week (30 hours).

Subjects Fork Truck Knowledge.
Loading and Stability.
Daily Check and Inspection of Truck.

Entrance Qualifications In employment as a fork truck driver or with a firm offer.

E/140. MOTOR MECHANICS' WORK Refresher course for Motor Mechanics

Duration of Course 6 weeks of 5 hours each week (30 hours).

Subjects Fault Diagnosis and the use of Diagnostic Service Equipment and Instruments on :
Petrol Engines.
Petrol Injection Units.
Automatic Transmission Units.
Front End and Power Steering.
Brakes and Suspension Units.
Automobile Electrical Units.

Entrance Qualifications Senior Group Trade Certificate of the Department of Education.

E/142A MECHANICAL ENGINEERING CRAFT PRACTICE

City & Guilds of London Mechanical Engineering Craft Practice (Course 155 Part I).

Duration of Course 1 year—2 evenings per week (5 hours weekly).

Entry Qualifications Junior Trade Certificate, Department of Education.

E/142B MECHANICAL ENGINEERING CRAFT PRACTICE

City & Guilds of London Mechanical Engineering Craft Practice (Course 155 Part II).

Duration of Course 1 year, 2 evenings per week (5 hours weekly).

Entry Qualifications Part I of the Certificate (155) or Senior Trade Certificate.

E/141 FITTING AND TURNING

Junior and Senior Trade Certificate of the Department of Education.

Duration of Course 4 years—evening (5 hours weekly).

Entry Confined to Mechanical Engineering Apprentices.

School of Printing + Book Production

TECHNICIAN COURSES

E/81. HIGHER PRINTING EDUCATION

This course is a continuation of the Day Block Release Course (see Course D/81).

**E/81A. PRINTING TECHNOLOGY
COMPOSING
LETTERPRESS MACHINE PRINTING
LITHOGRAPHY AND PHOTO-LITHOGRAPHY
BOOKBINDING AND PRINT FINISHING**

These are courses requiring attendance at the College for three evenings (9 hours) weekly per session. The courses are aimed at preparing students for the Advanced Examination of the City & Guilds of London Institute.

Fee £8.50 per annum.

E/82. TRAINING FOR ADMINISTRATIVE STAFF

This course is a continuation of the Day Course for Administrative Staff (see Course D/82).

E/83. APPLIED PRINTING

A course requiring attendance for 2 evenings each week designed to provide those engaged in the Clerical and Administrative side of Printing with a general knowledge of the crafts involved in modern printing and of the materials and appliances used. Students who complete the course may enter the General Technical Knowledge examination of the British Federation of Master Printers. It is also necessary to have passed the General Technical Knowledge examination to be accepted as a candidate for the following:

- Training for Administrative Staff.
- Estimating examination of the British Federation of Master Printers.

Fee £6.00 per annum.

E/83A. PRINTING OFFICE PROCEDURE

Object This course, requiring a minimum attendance for two evenings each week, is aimed at preparing printing administrative personnel for the Printing Office Procedure Examination of the British Federation of Master Printers.

Entrance Qualifications It is recommended that those entering the course should possess the General Technical Knowledge Certificate of the British Federation of Master Printers or equivalent qualification.

Fee £6.00 per annum.

E/84A. COST ACCOUNTANCY FOR PRINTERS

A course requiring attendance for two evenings each week designed to prepare students for the examination of the British Federation of Master Printers.

Entrance Qualifications Leaving Certificate and Preliminary Costing Certificate.

Fee £6.00 per annum.

E/84B. COST ESTIMATING FOR PRINTERS

A course requiring attendance for two evenings each week designed to prepare students for the examination of the British Federation of Master Printers.

Entrance Qualifications Leaving Certificate and General Technical Knowledge.

Fee £6.00 per annum.

E/85. PAPER TECHNOLOGY AND MARKETING

A 2-year course for employees of Paper Mills and Paper Merchants' and Printers' employees engaged in the handling of paper transactions. Students are prepared for the examinations of the National Association of Paper Merchants and the City & Guilds of London Institute.

Entrance Qualifications Leaving Certificate.

Fee £6.00 per annum.

E/86. TYPOGRAPHIC DESIGN AND LAYOUT

Course A—This course shall normally occupy two years and may be taken by means of either day or evening classes. Its aim is to prepare compositor students for the examinations of the Department of Education and the City & Guilds of London Institute.

Course B—A two-year course for students of Art and those engaged in publishing houses, design studios, advertising agencies and printing houses. Students will be expected to have at least an elementary knowledge of Typography and are consequently advised to take the Applied Printing course as well.

Fee £6.00 per annum.

E/89. BASIC DIPLOMA COURSE IN ADVERTISING

The part of the above course of the College of Commerce, Rathmines, dealing with Printing and Reproduction methods, is now being taken in the School of Printing.

Enrolments at College of Commerce.

E/181 ARTISTIC BOOK FINISHING

This evening course is open to craftsmen and others who are interested in the design of fine bindings. The lectures and practical exercises in the application of design will cover the history of book design and designers, blind and gold tooling, the use of plastic colour and foils, the preparation and treatment in finishing and binding of the various leathers and binding materials. The selection of non-craftsmen will depend on a satisfactory result to interview.

E/181A BOOKCRAFT

A course for students of the College of Art. The lectures and practical exercises will cover all aspects of book production and bookbinding techniques. Particular emphasis will be laid on design and its application to the make-up and finishing of the book. Use will be made of inlays and outlays, gold, foils, plastic colour, lino cuts and marbling. Subject to satisfactory attendance students will sit for the G.C.E. A level examinations in Bookbinding at the termination of the course.

E/181B BOOK PRODUCTION COURSE

This is intended for those involved in the care of books particularly librarians, librarians under training, record office staff etc. It will cover mechanized book production, hand bookbinding and book repair. Particular emphasis will be laid on the advantages and/or disadvantages of the various materials and binding styles used and their alternatives which may be used in the interest of economy. The techniques and terminology of forwarding, finishing and decoration will be dealt with.

E/182B PRINT FINISHING FOR FEMALE EMPLOYEES OF THE PRINTING INDUSTRY

This course covers techniques and materials used in the production of books, magazines and the wide range of miscellaneous work handled in the print finishing department. Lectures on the economies of efficient production, welfare, safety, hand and machine operations will be given. Stress will be laid on hand and machine operations, e.g., wire stitching, sewing and folding machine and hand feeding, gathering, folding, glueing, mounting, etc.

E/183 LETTERPRESS MACHINE PRINTING, RETRAINING

This is an evening course for post apprenticeship students with instruction in the latest letterpress techniques. The curriculum includes practical work on vertical presses, stop-cylinders, two revolution presses and sheet fed wraparound rotary printing, also the use of modern lining up, plate mounting and registering equipment.

Fee £6.00 per annum.

E/185 LINOTYPE, INTERTYPE, AND TELETYPESETTING

This course is for composing apprentices (4th and 5th year) and young journeymen who wish to become proficient in the operation of either keyboard. It covers daily maintenance routine and minor adjustments to the machines. It can be of one or two year's duration.

Fee £6.00 per annum.

E/186 MONOTYPE CASTER OPERATION

A course for Monotype Caster Operators who are already employed as such in the printing industry. It covers all aspects of Monotype Casting including adjustments, alignment etc.

Fee £6.00 per annum.

E/187 MONOTYPE KEYBOARD OPERATING

A course for composing apprentices (fourth and fifth year) and young journeymen who wish to become efficient operators. The course covers table, tabular and bookwork setting and includes machine adjustments. It can be of one or two year's duration.

Fee £6.00 per annum.

E/190 COMPOSING RETRAINING

This is an evening course for post apprenticeship students with specialist instruction in bookwork and advanced display, composing techniques, using modern make-up and registration equipment.

Fee £6.00 per annum.

E/191 BOOKBINDING AND PRINT FINISHING, RETRAINING

This is an evening course for post apprenticeship students with instruction in the latest techniques, and covers the whole range of materials and technology used in print finishing processes.

Fee £6.00 per annum.

E/192 LITHOGRAPHY AND PHOTO LITHOGRAPHY, RETRAINING

This is an evening course for post apprenticeship students with instruction in the latest techniques of lithographic plate making and press operation. Craftsmen having completed apprenticeship to other printing processes, undergo retraining in lithographic printing.

Fee £6.00 per annum.

E/195

FILM ASSEMBLY AND PHOTO HEADLINER DISPLAY TECHNIQUES

This course is of 26 weeks duration with attendance of 3 hours on one night per week. It is open to compositors and senior composing apprentices.

The course gives both practical and theoretical coverage of all aspects of Film Assembly including correcting, proofing, display and bookwork make-up, colour separation and finalisation.

E/195A

IBM KEYBOARD CONVERSION AND PAPER MAKE-UP COURSE**Entrance
Qualifications**

At present this course is only open to compositors and senior apprentices who have completed a 'Sight and Sound' touch typing course.

Object

The course enables operators to convert to the IBM 'Golfball' System and covers all aspects of IBM Composer usage, with reference to both justified and unjustified setting. Training is also provided in Paper make-up methods and materials along with Photo Headliner setting. Duration is 13 weeks with attendance for 3 hours on one night per week.

Note

Where applicable, courses are supplemented by films and visits to industry.

Fee £6.00 per annum.

E/196

DIPLOMA COURSE IN PRIVATE PRESSWORK

This is a one-year course requiring attendance on two evenings per week. This course is intended specifically for qualified persons who can show evidence of their involvement in the private press movement. The course will include a study of Printing History/ Type Design/ Typography/ Hand Composition/ Paper/ Hand illustration techniques/Inks/Handpress proofing and other relevant print techniques and materials.

**Entrance
Requirements**

Leaving Certificate or equivalent.

Fee £6.00 per annum.

E/197

PRINT MAKING AND GRAPHICS

The Lithographic Department is well equipped to operate courses in print making and graphics which include drawing and proofing from lithographic stones and plates, lino and wood cuts and engravings. Courses for art teachers and others, are organised according to the demand.

**Entrance
Requirements**

Leaving Certificate (including Art) or equivalent.

Fee £11.00 per annum.

School of Trades

EVENING COURSES

TECHNICIAN COURSES

CONSTRUCTION TECHNICIANS

The subjects of the course include: Building Construction, Geometry & Calculations, Plane & Solid Geometry, Builders' Quantities, Structural Engineering, Land Surveying & Setting Out. Course objectives include the Department of Education Technological Examinations in Building at Elementary, Intermediate, and Advanced Stages.

Employment in the Construction Industry.

Fee £11.00 per annum.

TRADE COURSES

Evening courses, leading to the examinations conducted by the Department of Education, and the City and Guilds of London Institute are provided in:

- E/101. Brickwork.
- E/105. Painting and Decorating.
- E/107. Vehicle Building.
- E/108. Vehicle Trimming.
- E/111. Cabinetmaking and Design.
- E/112. Upholstery.
- E/113. Wood-finishing.
- E/121. Carpentry and Joinery.
- E/122. Woodcutting Machinist's Work.
- E/143. Welding.
- E/143A. Welding (Short Courses).
- E/144. Patternmaking.
- E/145. Foundrywork.
- E/148. Smith & Art Ironwork.
- E/149. Metal-plate work.
- E/151. Plumbing/Heating Fitting.

Employment in the relevant trade.

Fee £5.50 per annum.

Apprentices attending appropriate evening courses are not required to pay a tuition fee.

EXAMINATIONS

At the end of each session internal examinations are held in connection with the courses. Promotion of students depends on success in these examinations. Students who have not the required attendances at the courses will not be permitted to take these examinations. Students are required to acquaint themselves with the examination and promotion regulations of the course which they take.

External Examinations

The courses relate to the Examinations of the following bodies:

1. Department of Education

(a) Technological Certificate Examinations in:

- (i) Building.
- (ii) Mechanical Engineering.
- (iii) Motor Car Engineering.
- (iv) Mathematics.

(b) Technician Certificate Examinations in Engineering

(c) Trade Certificate Examinations in:

- (i) Bricklaying and Masonry.
- (ii) Brass Finishing.
- (iii) Cabinetmaking.
- (iv) Carpentry and Joinery.
- (v) Compositors' Work.
- (vi) Letterpress Machine Work.
- (vii) Lithography & Photo Lithography.
- (viii) Bookbinding.
- (ix) Metalplate Work.
- (x) Motor Car Engineering.
- (xi) Painting and Decorating.
- (xii) Plasterers' Work.
- (xiii) Plumbing.
- (xiv) Fitters' Work.
- (xv) Turners' Work.
- (xvi) Metal Fabrication.
- (xvii) Sheet Metalwork.

2. Professional Institutions

- (i) Building Surveyors' Institute.
- (ii) Council of the Engineering Institutions.
- (iii) Institution of Engineers of Ireland.
- (iv) Institution of Mechanical Engineers.
- (v) Institution of Works Managers.
- (vi) Institution of Structural Engineers.
- (vii) The Institute of Building.
- (viii) Institute of Quantity Surveyors.
- (ix) Royal Institution of Chartered Surveyors.

3. Other Bodies

- (i) British Federation of Master Printers.
- (ii) City & Guilds of London Institute.
- (iii) Department of Industry and Commerce. (Licence in Aeronautical Engineering).
- (iv) Institute of Clerks of Works in Ireland.
- (v) Institute of the Motor Industry.
- (vi) National Association of Paper Merchants.
- (vii) Associated Examining Board (GCE).
- (viii) London University (GCE).

Note

In connection with the examinations of professional and other external bodies, students are advised to note the following :

1. Admission to a course in the College may not of itself entitle students to sit for examinations of external bodies. Students are themselves responsible for ensuring that they satisfy all the requirements of the examining body concerned.
2. Students are expected to acquaint themselves with the current regulations for the examinations which they propose to take.
3. Students must make all the necessary applications and provide all documents that may be required. In this connection any documents and certification (e.g. statements of attendance, etc.) required from the College authorities should be applied for at the earliest opportunity.
4. The College Authorities will give the fullest assistance and advice in the above matters.

ADVISORY COMMITTEES**Structural Engineering**

P J Carroll ME MStructE MICE MIEI
S F Dunleavy BE CEng MStructE MICE MIEI
R T Holloway BE CEng MStructE MICE MIEI
J J Harrington BE CEng MStructE MIEI

Architecture

F B Meehan MRIAI BArch
H S Robson MSc BArch MRIAI ARIBA
D O'Toole FRIAI AMTPI

Architectural Technicians

Denis J McGloughlin MIAAT
John M McCarthy MSAAT MIAAT

Town Planning

L Carvill DipArch (Liv) Dipl Civic Des (Liv) ARIBA AMTPI
J Conway BE AMTPI
G Meagher BComm DPA
M O'Brien BE AMTPI

Mechanical Engineering Trades

J Cassidy General Secretary National Engineering Union
H T Hanlon Irish Engineering Industrial & Electrical Trade Union
P J Buckley Irish Engineering Industrial & Electrical Trade Union
F Gray Personnel Officer Coras Iompair Eireann
O McLoughlin Messrs Tonge & Taggart
S O'Flaherty Managing Director Messrs Motor Distributors Ltd
John Watt 57 Ranelagh Road Dublin 6
T W Bamford Managing Director Universal Fabricators
H Farrelly District Secretary United Society of Boilermakers and Iron and Steel Shipbuilders

Heating and Ventilating Engineering

Eoin O Cionna BE MICEI AMIEE MIHVE MASHRAE MConsEI Hon Secretary The Association of Consulting Engineers of Ireland
Noel Traynor AMIHVE Hon Secretary The Association of Master Plumbers Heating & Ventilating Engineers of Ireland
Seamus Homan AMIHVE Design Engineer Varming & Mulcahy Consulting Engineers
Eamonn O'Brien c/o Robt Jacob Consulting Engineers
Reginald Keating GIHVE Hon Secretary The Association of Design Engineers & Draughtsmen

**Surveying+
Building
Technology**

Royal Institution of Chartered Surveyors

N McDonagh FRICS
F Shanley ARICS
D Bailey FRICS FAI
T L Sudway ARICS

Institute of Quantity Surveyors

T Clear FIQS
B McManus ARICS AIQS

Institute of Building

K Kelly AIOB
N Cross AIOB

Construction Surveyors' Institute

J Culleton FCSI
N Shortall ACSI

Incorporated Association of Architects and Surveyors

Stanley J Coggin FIAS FIARb

Bricklaying

Denis Murray Master Builders' Association

Brick+Stonelayers' Society
Francis O'Connor
James Farrell

**Carpentry
Joinery and
Woodcutting
Machinists'
Work**

Amalgamated Society of Woodworkers

James Carroll

Irish National Union of Woodworkers

William Joyce

Gerard Wall Secretary Irish Society of Woodcutting Machinists

J G McCormack Master Builders' Association

H R Armstrong Messrs Brooks-Thomas & Co

Furniture Trades

D McCarthy O'Dea & Co Ltd
P F McGrath Irish National Union of Woodworkers
J Carroll Amalgamated Society of Woodworkers
G L Wall Irish Society of Woodcutting Machinists
J R Hunter J R Hunter & Co Ltd
W Robinson National Union of Furniture Trade Operatives
52 Peter's Hill Belfast 13 Northern Ireland
P Marrey Furniture Manufacturer 20a St Joseph's Parade Dublin 7

Plastering

Operative Plasterers' Trade Society

Gerard Doyle
T Byrne M Creedon Ltd 3 Ardee Road Dublin 6

Plumbing

Association of Master Plumbers Heating & Ventilating Engineers of Ireland

P J Clonan
J B Doherty
P J Duffy
C Jones
J N Traynor
T Harrington

Plumbing Trades' Union

A Harmon
T King
J Lahiff
T Russell

Vehicle Building

National Union of Vehicle Builders

M Jackson
H Samway
G J Roberts Coach and Motor Body Builder 3A Lower
Grangegorman Dublin 7
M F Gavigan

**Aeronautical
Engineering**

P Delaney Aer Lingus Teo Dublin Airport
Lieut-Col J Teague Army Air Corps Baldonnell
Capt P G McCabe Aeronautical Officer Aviation Division Department
of Transport & Power

**Motor
Engineering**

A McAuley BSc Assistant Mechanical Engineer (Road) CIE

Society of Irish Motor Traders
Charles Warren

Automobile General Engineering and Mechanical Operatives' Union
B Leonard General Secretary
P Thewlis

Irish Engineering Industrial and Electrical Trade Union
J Drennan
M Geoghegan

Robert J Porter Messrs R W Archer & Co Ltd
Patrick Flanagan Messrs McCairns Motors Ltd
John Keeney LSE Motors Ltd
Maurice Foley Institute of the Motor Industry

**Structural
Steelwork**

P Dunne Irish Transport & General Workers' Union
J D Pearson Smith & Pearson Ltd
A Davidson Kennan & Sons
J D Purdy J & C McLoughlin Limited

National Engineering & Electrical Trade Union
J A Coffey
L O'Neill

**Printing+Book
Production**

Irish Printing Federation
C W Warren
R R Yates-Hale
P Hill
S Mooney

Irish Master Printers' Association
W D Britton
M Kavanagh

N C McGrath Irish Graphical Society
B O Cearbhaill BA LLB Irish Graphical Society
E Dignam Stereotypers' Society
J Cullen Irish Bookbinders' & Allied Trades' Union
P. Murphy Lithographic Artists' and Process-Workers' Society
J Jeffers Photo Engraving Group
W R Trulock National Graphical Association

ACADEMIC STAFF

School of Architecture, Surveying + Building

Head of School : Kevin Fox BArch MRIAI

**Department of
Architecture+
Town Planning**

Head of Department : John J O'Keeffe MRIAI BArch
Assistant Head : Liam Carlin MRIAI ARIBA

Whole-time Staff

Albert J Brady BArch MRIAI
Niall Brennan DipArch MRIAI
Michael Clifton BE AMICEI
Sean Gaynor DipArch MRIAI
William Gilligan BArch MRIAI
Fergus A Hogan MRIAI DipArch
Anthony Johnson BArch MRIAI ARIBA
John O'Gorman BArch FRIAI FRIBA
Dermot Healy DipArch MRIAI
Stanislaus Manning BArch MRIAI
Dr. Brendan Murphy BE MA PhD
Eamonn O'Doherty BArch MRIAI
Michael O'Sullivan DipArch MRIAI
Sean Rothery BArch MRIAI
Martin Ridge DipArch MRIAI

Part-time Staff

Charles Brady
M Brogan ARIBA MRIAI
Angel Bruton BArch MRIAI ARIBA
Peter Doyle BArch MRIAI ARIBA
Neil Downes BArch MRIAI
C P Ferguson MRIAI ARIBA
R J Fowler DipArch MRIAI
Leonard Gallagher BAgrSc
J B Gilroy DipArch MRIAI
James J Harrington BE CEng AMIStructE AMICEI
Thomas Illingworth
P Kerrigan DipArch ARIBA
Derek Kilfeather
James F Knaggs
Ciaran Lennon
Piaras Mac Cionnaith BArch MRIAI
Ray McDonnell BArch MRIAI
Leo Mansfield Dip Arch MRIAI
Christopher Morris

T O'Beirne
D O Cínneide
S O'Connor
John O'Donnell
Desmond O'Dwyer DipArch MRIA
G W O'Hara
Michael Phillips BArch MRIA
Martin Reynolds DipArch MRIA
John C Scannell BArch MRIA
Duncan Stewart BArch MRIA
Pascal Wynne IAS

Extern Examiners

A Gibney DipArch MRIA
Brian Henderson FRIBA
W A Gibbon MA FRIBA
Jean Paul Lesterlin, Paris

**Department of
Surveying+
Building
Technology**

Head of Department : Vacant

Assistant Head : Eanna de Burca FRICS

Assistant Head (Urban Economics): Laurence Liddle MA FRICS

Whole-time Staff

John Barnett ARICS MIMinE FGS
John Keegan MHIA DipHI (Seconded from the Department of Health)
Seamus Cunningham MI(Hons) ABSI
Joseph P Davis BComm MSc(Econ) CertEd DipStats
J A Dixon BSc FRICS
Patrick Egan AIOB
Frank Fullard MHIA AMAPHI
Ian Johnson ARMIT MIS
Daniel Kelly BE MIEI CEng FCSI
Sean Loftus Barrister-at-Law
Patrick McGuinness FIOB
Patrick Mulhern BSc PhD
Kevin Murnane ARIBA MRIA
Liam O Dulachain FCPA FICA
Jon Patrick ARMIT DipSur
Rory Walsh ARICS

Part-time Staff

Michael Bannon MA
C J Byrne BE MIEI
Bernard Le Cesne Byrne BE AMICE AMIStruct
John Cripwell BSc ARICS
Michael Davitt ABSI
J Eustace MA
A Farrell MRIA
John Furey BComm DipHS DipPA MHIA AMPHIA
Paul Good ARICS
Dr Derek Goodhue BSc
P Griffin MRIA
Cornelius Healy MHIA
Jack Kearney MRIA
F McCarthy LLB
S McDonald BE MIEE
P McDevitt ARICS
B McManus ARICS AIQS
F Richard Morrison BSc FRICS
Liam Owens MSc AIAS
Gerard Murphy MRSH
Michael A Nugent MHIA DipHI
Mannix O'Boyle MRCVS
Timothy J O'Halloran FRICS
P Pigott BE MSc
Bruce Russell MSc
Peter Strogen PhD
E Schiener PhD
Dr John Walker MB BCh BOA
Staf Van Velthoven MRIA
Thomas D Watson MHIA

Visiting Lecturers

J Good BE FRICS
F Shanley ARICS
J H McFarlane FAI

External Examiners

Gerald Louis Burke MC MSc FRICS FAI AMTP
Patrick J Carmody MA FRICS
James Good BE FRICS
Robert Hedges FIOB FIQS AMBIM
Robert Francis Lane BSc FRICS
Aidan Williams FRICS

School of Engineering

Head of School : John D Barry PhD MSc BE CEng FIMechE FIEI

Assistant Head : Denis Fitzgibbon BE MSc CEng MIMechE

Department of Engineering Technology

Head of Department : Denis Fitzgibbon BE MSc CEng MIMechE

Assistant Head : Michael O'Donnell MEconSc BE BComm CEng MIProdE MIEI

Whole-time Staff

Liam Archer CEng MIMechE

Daniel Byrne AMIHVE

John A Butler DipEng AMInstF CEng MIMechE

John Cash BE MS CEng MIMechE

Michael Clifton BE CEng MIEI

J. Kieran Coyne BE MSA

Patrick Doyle AMIEE DipIE

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Neil Gillespie CEng MIMechE GIHVE

Raymond Hughes CEng MIERE

John Kelleher BE

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Vincent Duffy

Martin J Egan BSc

T E Glynn

R Grimason AMIHVE

John Gribben HonsMI

James J Harrington BE CEng MIStructE

Matt Harton DipEng MSc

Seamus J Homan AMIHVE

Reginald Keating AMIHVE

T Keogh DipEng MSc

A J Knott AMIHVE

J F Lawless

Padraig MacLoughlin BE

Daniel Mooney AMIHVE

Joseph Murphy

A O Dunlaing BE MEngSc

Richard F O'Leary

Brian Torpey CEng MIStructE

Dermot Walls BE

Arthur R Ward ACA

Andrew Whelan ME AMICE MIEI

Extern Lecturers & Examiners—Professional Courses

Professor F Koenigsberger DSc FIMechE MemASME FIProdE Professor of Machine Tool Engineering University of Manchester

Professor Ford DSc(Eng) PhD FIMechE MICE FRS Head of the Department of Mechanical Engineering and Professor of Applied Mechanics Imperial College of Science and Technology London

Professor P Grootenhuis Dept of Mechanical Engineering Imperial College of Science & Technology

Professor Z S Makowski PhD DIC CEng FICE MASCE Professor of Civil Engineering University of Surrey

Technician Courses

R P Grainger BE CEng FIMechE MIEI

Dr G Scaife PhD BSc CEng

Civil Engineering

S Dunleavy BE CEng MIStructE

Dr. L Stephens BE BSc PhD CEng

**Department of
Science+
Mathematics**

Head of Department : James A Nunan BSc HDipEd

Assistant Head : Gerard Lawlor MSc

Whole-time Staff

John Boland BSc

Patrick Carroll BSc

Elizabeth T Clancy BSc

Tomas O Conbhai BSc HDipEd

Jeremiah T Cotter MSc

John J Doherty BA

Dr John O McBride PhD

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Martin J Egan

James J Gahan BSc

Declan Hoare BSc

Denis J McCarthy

Thomas McKeown

Brian Nolan

Anthony Penny

Peter Ward

Brian P Woods

**Department of
Engineering
Trades**

Head of Department : Robert L Eustace BSc (MechE)

Assistant Head : Joseph Shiels

Whole-time Staff

Desmond Aungier

Martin Dunne C & G (Mech & Aero)

Peter Flood

Charles T Hurley

Denis McGrath Final C & G

James McKenna

Charles B O'Brien GradIPlantE FTC (C & G)

H A O'Neill CEng FIProdE

Part-time Staff

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Christopher Canavan

David Cox

Peter Deane

Niall Dardis

John Kearns

Paul Kennedy (Final C & G)

William Kennedy

William Kelly

James F Lawless

William Mowldes

Brian Murphy DipEng

Sean O'Farrell

George Thornberry

**Department of
Aeronautical
Engineering**

Head of Department : Thomas McInerney AMSLAE ACD & X Licences

Assistant Head : Michael Forde A & C Licences

Whole-time Staff

William J Brazil

Part-time Staff

Gerard H Brannigan

James Coleman X Licence PMG

Eamonn K Dempsey

James Donohoe AME

Alberic Doody AME

Patrick Hanley

Thomas Higgins AME

James S Hogan AME

John A Hughes

James F Matthews

Patrick M Murphy LAE

Thomas Murphy

Donal O'Meara

Andrew O'Neill AME

Sean Staunton

Leonard Strecker DipEng GIMechE MIEI

Robert Stuart

Frank J Walshe

Douglas Wilson

Patrick Whyte

**Department of
Automobile
Engineering**

Head of Department : John Guirke AMIMI Manual Instructor's
Certificate (Honours) AMBIM
Assistant Head : Richard Dowling MIMI

Whole-time Staff

John A Butler DipEng AMInstF CEng MIMechE MBIM
Timothy Giblin FTC(C & G)
Alan Harbron SIMT TechDip
T J Kernan FTC (C&G) FIMH
Patrick Kenny BE MSc
Michael Kelly SIMT TechDip MIMH
Arthur McDermott AMIMI MIWM DipSocSc AMBIM
James McGauran SIMT TechDip
John Monaghan FTC (C&G)
Paul Purcell SIMT TechDip
Niall O Cearbhaill BE
John Wilcox SIMT TechDip

Part-time Staff

Bernard Butler AMBIM MIWI MIMH
Fintan Byrne GradIMI
Thomas Carroll AMIMI
Michael J Chester CEng AMI MarE
Paul G Colligan ACA FCWA
William Costello DipEng GIMechE
David J Cunningham
William J Doherty
Edward P Dunne CEng MIMechE MIEI
Stephen Dunne
John A Durney
John C Fitzpatrick
Enda Fagan FTC (C&G)
Thomas A Flood GradIMI
John Gribben
Peter T Hynes
Reg Keating CEng AMIHVE
Brendan A Kelly GradIMI
Martin Noel Kennedy BE CEng
Thomas Leddy
Michael Long
Sean J Loughran GIMechE
Bernard E McGee
Donal McGonnell GradIMechE
John McNamara
Desmond Maguire
Stephen Mason
Michael C Quirke GradIMI

Patrick Morgan
Patrick Murray
John Newman AMIMI SIMT TechDip
John O'Gorman GradIMI
Michael O'Neill GradIMI
G Pello AMInstF
R Phelan CEng AMIMarE
Eamon V Staunton AMIWI
Anthony Tobin

**Department of
Metal
Fabrication**

Head of Department : John G Bolton MWeldI FTC (C&G)
Assistant Head : Brendan Rooney, Final C&G AWeldI

Whole-time Staff

James F Bartley Final C&G
Joseph N Bernie Final C & G
Patrick Carpenter FTC (C&G)
Thomas Colley Final C & G
Albert Byrne Final C&G
Wm Jackson Final C & G
Gabriel McGreer Final C&G
Seamus Murran Final C & G
Nicholas Murray Final C&G
Anthony O'Toole FTC C&G
Joseph Quinn
Daniel Rooney FTC C&G MRSH
Joseph K Walsh FTC C&G

Part-time Staff

Patrick Bolton Final C&G
James Bryan Final C&G
Francis Byrne
William F Carroll
Robert Couchman FIDHE
Joseph Cross Final C & G
Noel Dunne Final C&G
Michael C Foran
Brian Gilbert Final C&G
Henry Greagsbey
Henry Higgins Final C&G
John Lavelle Final C & G
George Mackie MWeldI
Hugh Maguire FIHVE
Noel Mullen AWeldI
Vincent Robinson SJ FTC C&G

**Department of
Building
Trades 'A'**

School of Trades

Head of School : J B Hickey BA

(Bricklaying and Masonry, Furniture, Plastering, Painting and
Decorating, Vehicle Building, Vehicle Trimming and Vehicle Painting)

Head of Department : Michael C Murray Hons C&G

Assistant Head : Vacant

Whole-time Staff

James Burns
Charles Costello
Frederick Hosford Final C&G
Joseph Lawlor BA HDipEd FIBD
Gerard O'Toole

Part-time Staff

John Kenny
Patrick Lawlor
Sean Mac Conaill

**Department of
Building
Trades 'B'**

Head of Department : Thomas Bridgeman FCSI FTC(Hons)

Assistant Head : Joseph P O'Byrne FCSI

Whole-time Staff

Michael Bridgeman
Thomas Byrne
Donal Cooper Final C & G
Brendan Dunne FCSI
Aidan Halpin ABICC Final C & G
James Kelly Final C & G
Patrick Kelly Final C & G
Thomas Kiernan FTC (C & G)
Michael McDonnell
Robert McShane
John McGuirk
William D O'Sullivan AIQS
James Wall

**Department of
Metal
Fabrication**

As in School of Engineering.

School of Printing+Book Production

Head of School: Philip O'Reilly MIOP

Assistant Head: Prionsias O hEifearnain BA HDipEd FTC (C&G)

Dept Assistant (Letterpress Machine): Joseph Reddin Lic in Printing
(C&G) AMIPtgM

Whole-time Staff

John Bennett BA FTC (C & G) FTC (Design)
Patrick Daly BA FTC (C & G)
John M Foley FTC (C & G)
J P Brian Kennedy BA FTC (C & G)
Brendan Quinn Final C & G
Kenneth Richards Final C & G
Robert Sharpe Final C & G

Part-time Staff

Brian Allen
David Blake
Peter Clarke Final G&G
Patrick Corbally
Ciaran Donaghy BA BComm
Kevin Dunne BComm
W Dunne
F Dowling
R Dowling
B. Farrell
W J Fitzpatrick MIOP
Michael Grehan Final C&G
Bartholomew Hempton
E Horan
James P Keane
William Kelly
Michael John Kennedy
G A Lynch
Michael Masterson BA
L McConkey
Stanley McDonald
John McInerney BA
Allan McLeod-Martin ACCS
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Rev Patrick Power OFM

School of Trades

PHYSICAL EDUCATION

Michael C Doogan

LIBRARY

Senior Librarian

Miss Moira Fennell

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